AHLBORN

HIGH DEFINITION PIPE ORGAN SOUND

PRAELUDIUM III
PRAELUDIUM IV/E

USER'S MANUAL / MANUALE D'ISTRUZIONI

ENGLISH/ITALIANO

AHLBORN

HIGH DEFINITION PIPE ORGAN SOUND

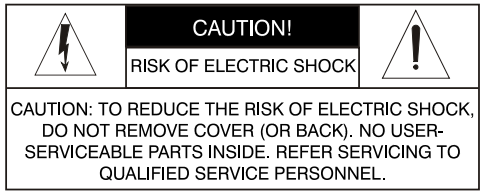
PRAELUDIUM III
PRAELUDIUM IV/E

USER'S MANUAL

ENGLISH

IMPORTANT SAFETY AND INSTALLATION INSTRUCTIONS

INSTRUCTION PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS.


CAUTION!
RISK OF ELECTRIC SHOCK
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

ALARM SYMBOLS:

Generalmusic electronics products could present labels similar to that displayed in this section. Please follow accurately the precautions descripted in the safety instructions.

The exclamation mark within an equilateral triangle is intended to alert.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

WARNING - When using electric products, basic precautions should always be followed, including the following:

1. Read all the Safety and Installation instructions and explanations of Graphic Symbols before using the product .
2. This product must be earthed. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and earthed in accordance with all local codes and ordinances.

DANGER - Improper connection of the equipment grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product, if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

3. To reduce the risk of injury, close supervision is necessary when this product is used near children.
4. Do not use this product near water - for example, near a bathtub, washbowl, kitchen sink, in a wet basement, or near a swimming pool or the like.
5. This product should only be used by a stand or cart that is recommended by the manufacturer.
6. This product, either alone or in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
7. This product should be located so that its location or position does not interfere with its proper ventilation.
8. This product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
9. The product should be connected to a power supply only of the type described in the operating instructions or as marked on the product.
10. This product may be equipped with a polarized line plug (one blade wider than the other). This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician to replace your obsolete outlet. Do not defeat the safety purpose of the plug.
11. The power-supply cord of the product should be unplugged from the outlet when left unused for a long period of time. When unplugging the power supply cord, do not pull on the cord but grasp it by the plug.
12. Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
13. The product should be serviced by qualified service personnel when:
    - A. The power-supply cord or the plug has been damaged
    - B. Objects have fallen, or liquid has been spilled into the product;or
    - C. The products has been exposed to rain or moisture
    - D. The product does not appear to be operating normally or exhibits a marked change in performance
    - E. The product has been dropped, or the enclosure damaged.
14. Do not attempt to service the product beyond that described in the user-maintenance instructions. All other servicing should be referred to qualified service personnel.
15. **WARNING -** Do not place objects on product power cord or place it in a position where anyone could trip over, walk on or roll anything over it. Do not allow the product, or its bench, or its pedal board to rest on or to be installed over power cords of any type. Improper installations of this type create the possibility of fire hazard and/or personal injury.
16. Electromagnetic interference (RFI). This electronic product utilizes digital sampled wave processing technology (S.W.P.) that may adversely affect radio/tv reception. Read FCC information inside back cover for additional information.

SAVE THESE INSTRUCTIONS

FOREWORD

AHLBORN-ORGANUM/PRAELUDIUM is a Classical Organ line built with the most advanced **DRAKE** (Dsp-Risc-Advanced-Keyboard-Engine) technology. The design authentically recalls with great precision the complex sound parameters, that characterize the timbre and nuances of the classical pipe organ.
The following are significant functions and features of these instruments

1 ALTERNATIVE AND ACCESSORY STOPS

Each stop displayed in the instrument may avail itself of "**Alternative stops**" of exceptional sound quality. The organist may freely select those stops which better respond to his/her personal taste; but, above all, select the type of music repertoire he/she wants to play. In fact there are stops relating to many of the national organ traditions and to many historic music trends.

In addition, there are "**Accessory stops**" which can be activated in each organ section (Swell, Great and Pedal) by using tabs located in front of the instrument. These are special organ stops (horizontal and high pressure reeds, tubular bells, Zimbelstern) with the addition of harpsichord and piano stops to be used as necessary, to accompany vocal and instrumental ensembles.

2 ORGAN SETTING AND GENERAL CONTROLS

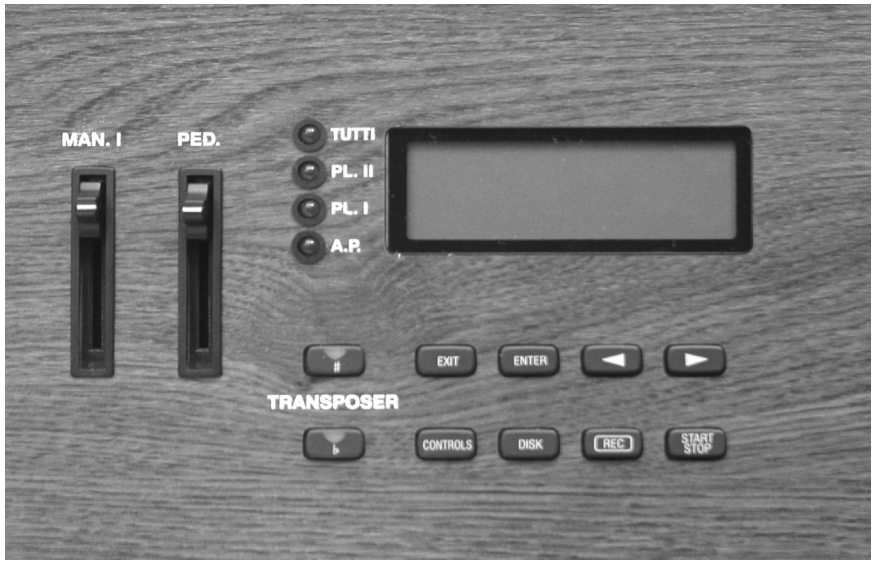
By using the CONTROLS button of the PROGRAMMING SECTION, it is possible to set the parameters of each single stop and also to modify many general controls: tremolo regulation, manual inversion, "short octave", historic and programmable, etc., to answer every organist's special need.

3 TRACKER TOUCH

As an alternative to the normal functioning of the organ, the organist may choose this special mode simulating the touch of pipe organ with mechanic transmission action, controlling the sound attack and release. This adjustable feature may add a more lively and personal performance.

3 SEQUENCER AND FLOPPY DISK DRIVE

The Sequencer and Floppy Disk Drive permit the concert player, the organ student, and the liturgical organist to study, perfect and listen to personal performances with greater objectivity. This instrument is equipped with a control unit for using the many functions characterized by the **PROGRAMMING SECTION**, positioned in the front, with an alphanumeric display.



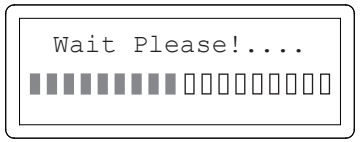
Users instructions are to be found in this manual in the general **OPERATING PLAN**, followed by illustrations on single functions.

AHLBORN **CLASSICAL ORGANS**

The console of these instruments maintains the traditional requirements of pipe organs.

SWITCHING ON

The first time the instrument is turned on, a two minute decompressing phase for the sound library is required in order to utilize its internal memory. The following indication will appear on the display, and it will disappear automatically when the decompression is finished:



After the instrument is turned off, it will save the decompressed items relative to the sound library in memory thus avoiding any waiting time for decompressing the organ next time it is turned on. This is possible because the instrument is equipped with a backed memory which, once discharged, requires about three hours to recharge (the battery will last about five days). To update the sound library it is necessary to force the decompressing and subsequent memory charge by pressing the EXIT button of the PROGRAMMING SECTION while turning on the organ.

Organ Reset Procedure

It is possibile to restore the organ original factory setting (Voicing, Finishing), using the following procedure:

- ***Switch on the organ keeping pressed the ENTER button of the PROGRAMMING SECTION for the entire initial phase of bootstrap (Operating System Loading – more or less 5 seconds).***

Attention! *This procedure causes the deletion of all the editing executed in Voicing and Finishing section of the instrument. Please take always care to save your data in the floppy disk driver.*

STOPS

Control tabs carry the name of specific place stops. Each tab comprises a number of "**Alternative stops**" which can be freely selected by the organist. Three specific tabs, named REG. ACCESS. G.O./REC./PED. control special "**Accessory stops**" which can be referred to any section of the organ. Detailed instructions are supplied on pages 16 -17 of this user's manual. The tabs are of the light-up type: if the lower half of the tab is pressed, the stop will be activated, lighting up the tablet; if the upper part of the tab is pressed, the corresponding stop will be deactivated and the light on the tab will turn off. Such a system permits a clear visualisation of the stops drawn and correct use of the combination action. Tabs are numbered progressively above their name. The organist may use this general number to quickly write down the selection chosen. The name of the stop is written on the central part of the tab together with the number of "ranks" which form it. The bottom half of the tab shows the conventional "footage" of the stop.In each section, stops are displayed from the lowest to the highest footage. When two stops have the same pitch, they appear in the order given by the sound "family" to which they belong: Principals, Flutes and Bourdons, Strings, Mixtures, Undulating stops and Reeds. This last group marked by red tabs is placed on the right-hand side of each section before the Couplers.

COUPLERS

Couplers I-Pedal and II-Pedal allow those stops which have been drawn on the manuals to play. Coupler I-II adds the stops drawn on the Swell to the Great. The corresponding controls appear as **TABS** on the extreme right of the relative section. The thumb pistons are "reversible": pressing once activates the couplers; pressing again, deactivates them. It is also possible to deactivate the couplers manually when they have been activated with the thumb pistons and vice versa.

COMBINATION ACTION (BANK MODE - Default Setting)

This instrument offers 10 general combinations with 50 memories giving a total of **500 combinations with automatic return to hand-set registration**. The corresponding controls appear as **THUMB PISTONS** from 1 to 10 under Manual I.
THUMB PISTONS below Manual I (from left to right):

F	COMBINATION SET	**-/+**	SELECTION OF MEMORY from 1 to 50
0	HAND-SET REGISTRATION	**1** to **10**	COMBINATIONS
A.P.	AUTOMATIC PEDAL	**PL.I,PL.II**	PLENUM I, PLENUM II
T	TUTTI	**A**	GENERAL CANCEL

TO SET A COMBINATION:

1 Press the -/+ thumb pistons to set a memory. The corresponding memory in use will light up on the display. Each memory can store 10 different combinations.

2 Press the tabs of the desired registration.

3 Press and **HOLD** the **F** thumb piston and press any of the thumb pistons. The selected registration is now memorised.

4 Bring all tabs to zero, using the **A** thumb piston and repeat the operation on thumb pistons which are still available.

When one memory is full, press the -/+ selector again and repeat the entire procedure to complete the other memories. It is also possible to pass from one memory to another with an inserted combination. In such case, the memory number on the display **FLASH** until inserted in a combination belonging to the newly selected memory.

TO MODIFY A STORED COMBINATION:

1 Press the numbered thumb piston corresponding to a previously memorised combination.

2 Add, cancel or change the stops required.

3 Press and **HOLD** the **F** thumb piston and **press the same numbered thumb** that was pressed in stage 1 above. Release both pistons. The modified registration is now memorised.It is possible to effect a temporary change to the combination by hand, without the use of the set control. In this case, if the same numbered thumb piston is pressed, the original registration will be restored.

TO ERASE COMBINATIONS PARTIALLY OR TOTALLY:

1 Press the **'A'** piston, checking that no stops are activated.

2 Select the memory which contains the combination you wish to erase.

3 Press and **HOLD** the **'F'** thumb piston and press the numbered thumb pistons relative to the combination that is to be cancelled. Its contents are now erased, whereas the contents of the other memories remain unchanged.

COMBINATION ACTION (SEQUENCE MODE)

This instrument offers **500 combinations with automatic return to hand-set registration**. The corresponding controls appear as **THUMB PISTONS** Manual I.

THUMB PISTONS below Manual I (from left to right):

F	COMBINATION SET	**-/+**	DECREMENTATION/INCREMENTATION
0	HAND-SET REGISTRATION	**1** to **9, 0**	NUMERICAL KEYS FOR DIRECT ADRESSING OF COMBINATIONS
A.P.	AUTOMATIC PEDAL	**PL.I,PL.II,**	PLENUM I, PLENUM II
T	TUTTI	**A**	GENERAL CANCEL

TO SET A COMBINATION:

1. Press the tabs of the desired registration.
2. Press and **HOLD** the **F** thumb piston and press numerical keys. For position greater than 9, press numerical keys fast one after the other. Release the keys. The combination you have choosen is flashing in the display. At this point the registration is **not** memorised yet.
3. Press and **HOLD** the **F** thumb piston and press the "**0"** numerical thumb piston. Release both keys. The combination is now saved and will be indicated permanently.
4. Bring all tabs to zero, using the **A** thumb piston and repeat the operation on thumb pistons still available.

TO MODIFY A STORED COMBINATION:

1. Call up a previously memorised combination. That operation is possible in 2 different ways :
   - a *Press numbered thumb pistons (i.e. 7 or 3-4 or 4-2-7) The numerical call up will be executed with a short delay.*
   - b *Press - piston or + piston. Previous or next combination is called up without delay. In position General Memory = 0, the - and + pistons have no effect. Actual memory will be indicated in the display.*
2. Add, cancel or change the stops required.
3. Press and **HOLD** the **F** thumb piston and **press** the "**0"** numerical thumb piston. The modification is done. Release both pistons. The modified registration is now memorized. It is possible to effectuate a temporary change to the combination by hand, without using the set control. In this case, if the same numbered thumb is pressed, the original registration will be stored.

TO ERASE COMBINATIONS PARTIALLY OR TOTALLY:

1. Select the memory which contains the combination you wish to erase.
2. Press the **'A'** piston, checking that no stops are activated.
3. Press and **HOLD** the **'F'** thumb piston and press **"0"** numerical thumb piston. It's content is now erased, while the contents of the other memories remain unchanged.

• ***NOTE*: Before every performance, make sure that the Crescendo is in the normal position (O)**

AUTOMATIC RETURN TO HAND-SET REGISTRATION ('0'-PISTON):

While playing with a hand-selected registration, it may be necessary to use one or more combinations that have already been fixed. In this way, the original hand-set registration will be either cancelled or modified. However, by pressing the **'0'** piston, the original hand-set registration will be automatically restored. If you wish to cancel this also, press the General Cancel piston **'A'**.

PRESETS

The Presets are activated through the tumb pistons **PL.I, PL.II, T**. The corrisponding led indicators are located on the left of the display. Their contents are **ADDED** to the hand-set or combination registration inserted. They are: **PLENUM I, PLENUM II, TUTTI**.

PROGRAMMABILITY OF THE PRESETS

All the presets indicated above can be programmed by the organist in the following manner:

1. Select the desired registration by means of the stop tabs.
2. Press and **HOLD** the **'F'** thumb piston (to the extreme left under Manual I) and press one of the desired pistons. Release both pistons. The selected registration is now memorised.
3. Press the General Cancel piston **'A'** to turn off the tabs. Each time the reversible piston corresponding to the programmed preset is pressed, the stop tabs will NOT illuminate.

CRESCENDO (see note 3)

The **Crescendo Pedal** is located over the pedalboard, next to the swell expression pedal. The balanced pedal activates, in gradual stages, **20** levels of sound intensity: from ***pp*** to ***ff***. The Crescendo level is indicated on a digital display above Manual II. The Crescendo operates on the entire organ, and its effect is **ADDED** to the registration either hand-set or drawn by a combination piston.

PROGRAMMABILITY OF CRESCENDO (see note 3)

The contents of the 20 levels of the Crescendo are programmable by the organist as follows:

1. Move the Crescendo pedal to the position you wish to programme (a number from 1 to 20 appears on the display).
2. Select the desired registration by means of the stop tabs.
3. Press and **HOLD** the **'F'** thumb piston (to the extreme left under Manual I) and press the piston marked **'0'** (situated under Manual I) once. Release both pistons. The selected registration is now memorised.
4. Repeat operations 1, 2 and 3 for each Crescendo level required to be programmed.
5. Finally, press the General Cancel piston **'A'** to switch off the tabs. Each time the Crescendo operates, the stop tabs will **NOT** illuminate.

- ***NOTE 1:To visualize or not the Crescendo and the Preset contents visible, go to BLIND CMB control as described on page 40 (Generals).***
- ***NOTE 3: only for organs supplied with it***

AUTOMATIC PEDAL (operating mode "Normal")

For this useful device the reversible thumb piston **A.P.** is located below Manual I. The relative LED is located on the left of the display). With Couplers I-PED and II-PED, this device engages only the Coupler corresponding to the Manual which is played, excluding the other. If the Automatic Pedal is drawn together with TUTTI and CRESCENDO (see note 3), the stop configuration on the Pedal is immediately adapted to the Manual being used.

PROGRAMMABILITY OF THE AUTOMATIC PEDAL (operating mode "Normal")

In **TUTTI** and **CRESCENDO** (see note 3) the organist is free to programme his own modifications to the Pedal stops, when the Automatic Pedal is inserted. To do so, carry out all the operations already described in the paragraphs "Programmability of the Presets" and "Programmability of Crescendo" **with the AUTOMATIC PEDAL INSERTED**.

- ***NOTE 1: In addition to the automatic Pedal function, it is also possible to select PEDAL to GREAT for a monophonic coupler of the Great and Pedal stops. See at page 32 (Utilities).***

BALANCES AND SWELL PEDALS

PRAELUDIUM III is equipped with volume controls for each of the sound sections:

1	**GREAT VOLUME**	Slider control is placed next to the Programming Section.
2	**PEDAL VOLUME**	Slider control is placed next to the Programming Section.
3	**SWELL balanced pedal**	Is placed above the pedalboard.

Once the correct levels of Great and Pedal have been achieved, in relation to balance and environmental acoustics, there should be no need to make frequent changes later. The swell pedal continuously changes the volume of the Swell section, thus allowing any dynamic effect. The swell balanced pedal also modifies the timbre of the stops, analogous to that which occurs in a pipe organ with the closure of the swell shutters.

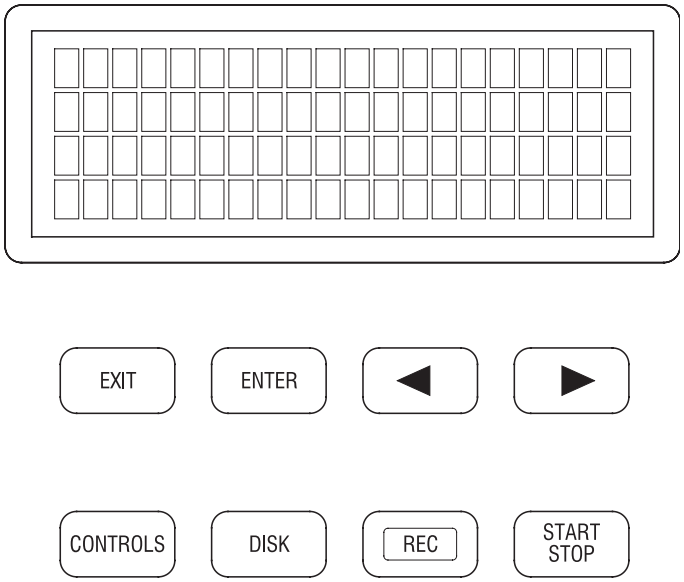
TRANSPOSER

The Transposer is particularly useful when accompanying for voices or other instruments. The two transposer led buttons that control this function are placed next to the Programming Section and are marked with the symbols ***#*** and ***b***.
It is possible to vary the pitch of the music by 6 SEMITONES BELOW and by 6 SEMITONES ABOVE standard pitch.
The position of the Transposer will appear on the display only when it differs from normal: i.e. Transp. = +3
To erase rapidly the command, press the two buttons simultaneously.

- ***NOTE 2: Before every performance, when the Transposer is not required, make sure that it is in the normal position.***
- ***NOTE 3: only for organs supplied with it***

PROGRAMMING SECTION

On the right side of the front panel above the keyboard is a section dedicated to the controls to modify the single and general tabs of the instrument, and to the incorporated Sequencer and Floppy Disk Drive.



GENERAL INFORMATION

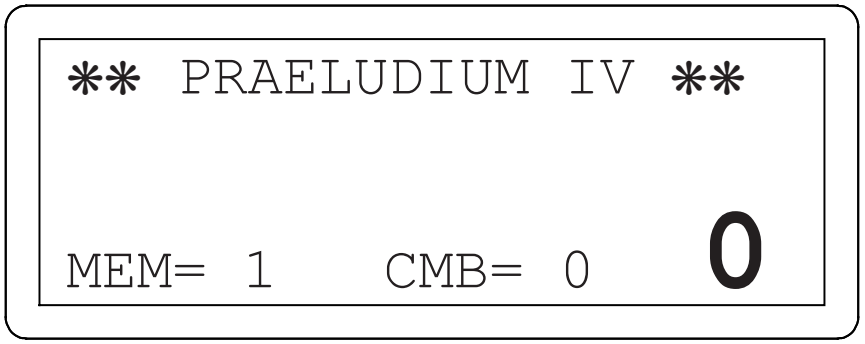
Use of the **PROGRAMMING SECTION** does not present difficulties as the sequence of the various functions follow a constant system. It is however recommended, especially at the beginning, to follow the step-by-step instructions contained in this manual for specific items of each function. First, carefully examine the exploratory examples of the various functions and controls, illustrated at the beginning of every paragraph with system panels, to always have a clear view of their position. Keep in mind that all functions are carried out in REAL TIME.

DISPLAY

All the functions carried out in this section are clearly visible on the alphanumeric liquid crystal **DISPLAY** (4 x 20) positioned in the front of the instrument.

GENERAL INFORMATION

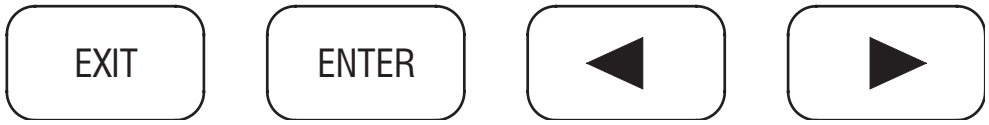
After turning on the instrument, the display will show the name of the instrument, the indication of memory position, and adjustable combinations; Crescendo (see note) (from 0 to 20) will appear in the lower right side:



This is the starting position of the normal functioning of the organ

Note : only for organs supplied with it.

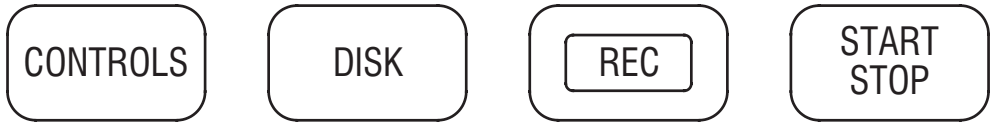
OPERATING BUTTONS



EXIT	**EXIT FROM THE FUNCTION IN USE OR FROM ITS VALUE.**
ENTER	**ACCESS TO THE FUNCTION IN USE OR TO ITS VALUE**
◀	**DECREASE OF THE FUNCTION IN USE OR TO ITS VALUE**
▶	**INCREASE OF THE FUNCTION IN USE OR TO ITS VALUE**

These four buttons are very important to set and modify the functions carried out in the PROGRAMMING SECTION. Their use are illustrated in detail on pages 12-13 of this User's Manual ➢ **SYSTEM PANELS.**

FUNCTIONAL BUTTONS



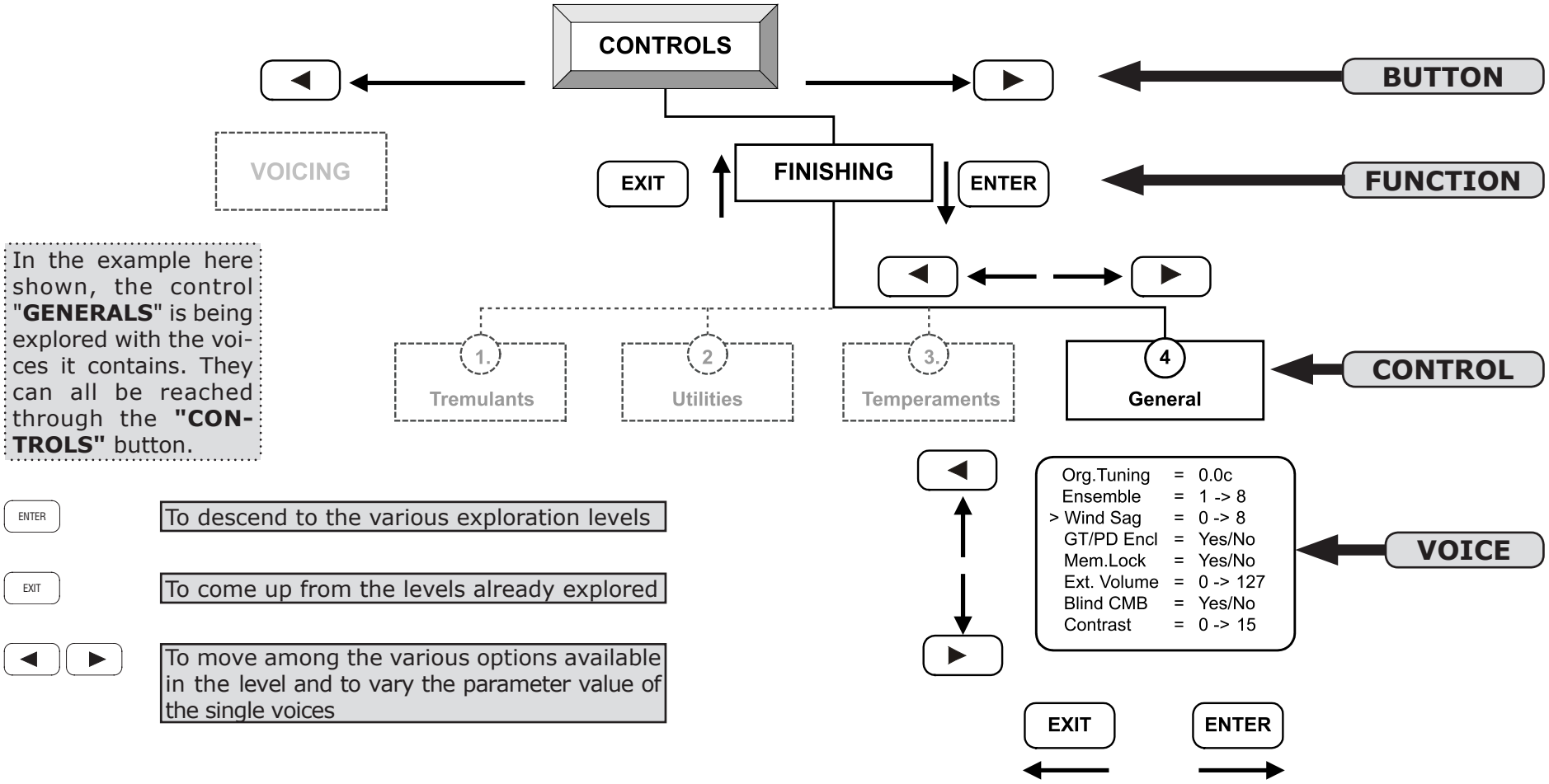
CONTROLS	**SELECTIONS AND MODIFICATIONS RELATIVE TO THE SINGLE TABS AND GENERAL CONTROLS**
DISK	**COMMANDS THE FUNCTIONS ON FLOPPY DISK DRIVE (incorporated)**
REC	**COMMANDS THE RECORDING ON SEQUENCER (incorporated).**
START STOP	**COMMANDS THE START/STOP OF THE SEQUENCER**

These four buttons are to be used together with the operative buttons for all possible modifications to the functions which relate to the single tabs and to the general controls of the instrument.

Their use is illustrated in individual paragraphs for each control.

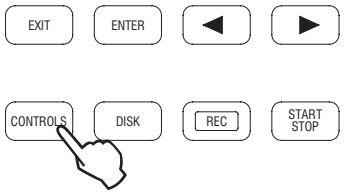
HOW TO OPERATE THE VARIOUS LEVELS OF A SYSTEM PANEL

This is a **fundamental part** of the User's Manual and it illustrates the exploration of the many **OPERATING CONFIGURATIONS** introduced here. It is important to point out how each exploration is to be carried out by using the operative buttons introduced in each dedicated SECTION (page 10).


CONTROLS
BUTTON
VOICING
EXIT
FINISHING
ENTER
FUNCTION
In the example here shown, the control "GENERALS" is being explored with the voices it contains. They can all be reached through the "CONTROLS" button.
1. Tremulants
2 Utilities
3. Temperaments
4 General
CONTROL
ENTER
To descend to the various exploration levels
EXIT
To come up from the levels already explored
To move among the various options available in the level and to vary the parameter value of the single voices
Org.Tuning = 0.0c
Ensemble = 1 -> 8
> Wind Sag = 0 -> 8
GT/PD Encl = Yes/No
Mem.Lock = Yes/No
Ext. Volume = 0 -> 127
Blind CMB = Yes/No
Contrast = 0 -> 15
VOICE
EXIT
ENTER

Once the user has learned the exploration procedure shown in detail on this page, he/she will not find any difficulties in exploring further FUNCTIONS or CONTROLS of the other System Panels contained in this User's Manual. **Let's then start our exploration !**

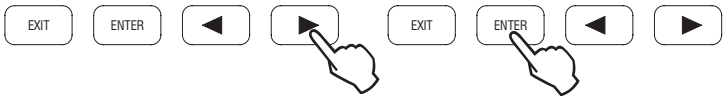
1 Press the CONTROLS button.



2 The display will show the two FUNCTIONS: "**Voicing**" and "**Finishing**". A cursor will indicate the position of the current option.

```
CONTROLS
 Voicing
>Finishing
```

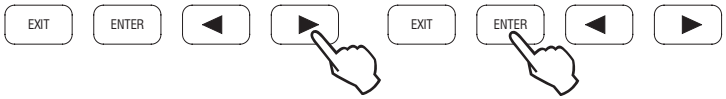
3 To select one of the two FUNCTIONS, use the ◀ DECR. or ▶ INCR. buttons (to explore the voices of "**Generals**" control, select the function "**Finishing**" by pressing the **ENTER** button).



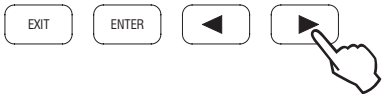
4 The display will flash the selected option. To the right, one or more arrows indicate that you can make more selections, as there are other controls in the function.

```
FINISHING          ←
Tremulants
Utilities
Temperaments
```

5 If you wish to change your selection, use the ◀ DECR. or ▶ INCR. buttons. If you wish to confirm your selection, press **ENTER**.



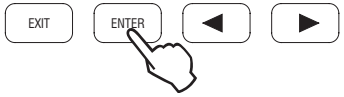
6 Press ◀ DECR. or ▶ INCR. to select "**Generals**" control.



7 Press **ENTER** to confirm your choice.

8 As explained in points 4 and 5, you can decide to make other selections (by using the ◀ DECR. or ▶ INCR. buttons) or confirm your last selection (by pressing ENTER). In the example below, the option for the "Generals" control is confirmed by pressing **ENTER**.

9 At this point the display will visualize the ten voices belonging to the selected "Generals" control: Org.Tuning, Ensemble, Wind Sag, GT/PD Encl, Mem.Lock, Ext Volume, Blind CMB, Contrast. Using ◀ DECR. or ▶ INCR. buttons and with the help of the cursor, select the voice you wish to modify. Confirm your selection by pressing **ENTER**.



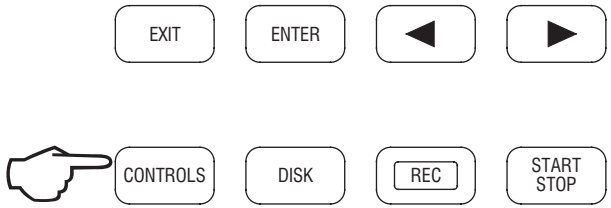
10 Press ◀ DECR. or ▶ INCR. to modify the selected voice according to its regulation range.

11 After the voice has been modified, you can follow the procedure backwards by pressing **EXIT** at each step.

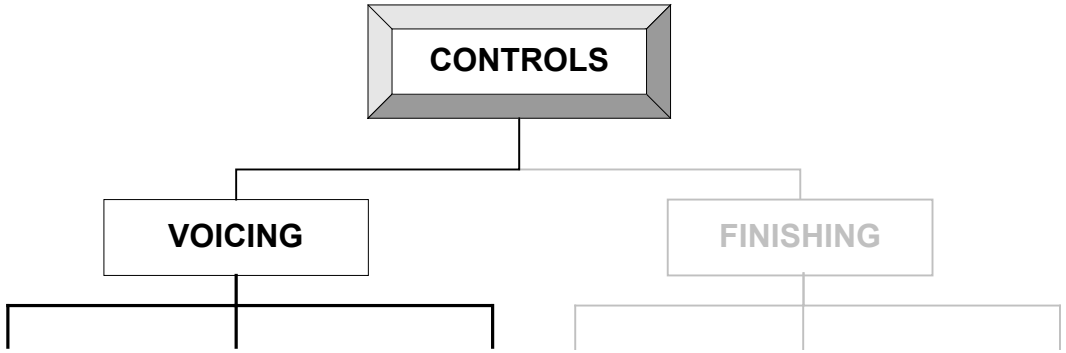
REMINDER !!!
In our SYSTEM PANELS, it is called "voice" everything which is contained within the squares with smooth corners. Always keep this as "starting point" of your explorations !

REMINDER !
At all times it is possible to return to a normal starting position, from all levels, by pressing the EXIT button for at least 2 seconds.

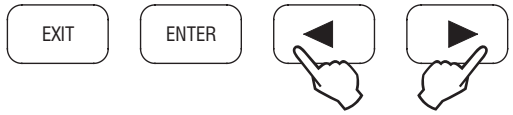
FUNCTIONS OF THE "CONTROLS" BUTTON



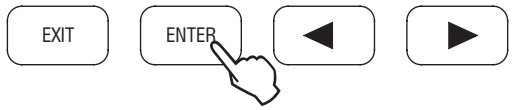
1 By pressing the "**CONTROLS**" button the display will show the two functions: "**Voicing**" (selected according to single tabs and their memorization) and "**Finishing**" (various accessory functions).



2 Press ◄ DECR. or INCR. ► buttons to select one of the two functions.



3 Make the selection as per point 2, then press "**ENTER**" to access the selection (in the example illustrated in the following pages, the function "Voicing" has been selected).



SYSTEM PANEL N.1"VOICING"

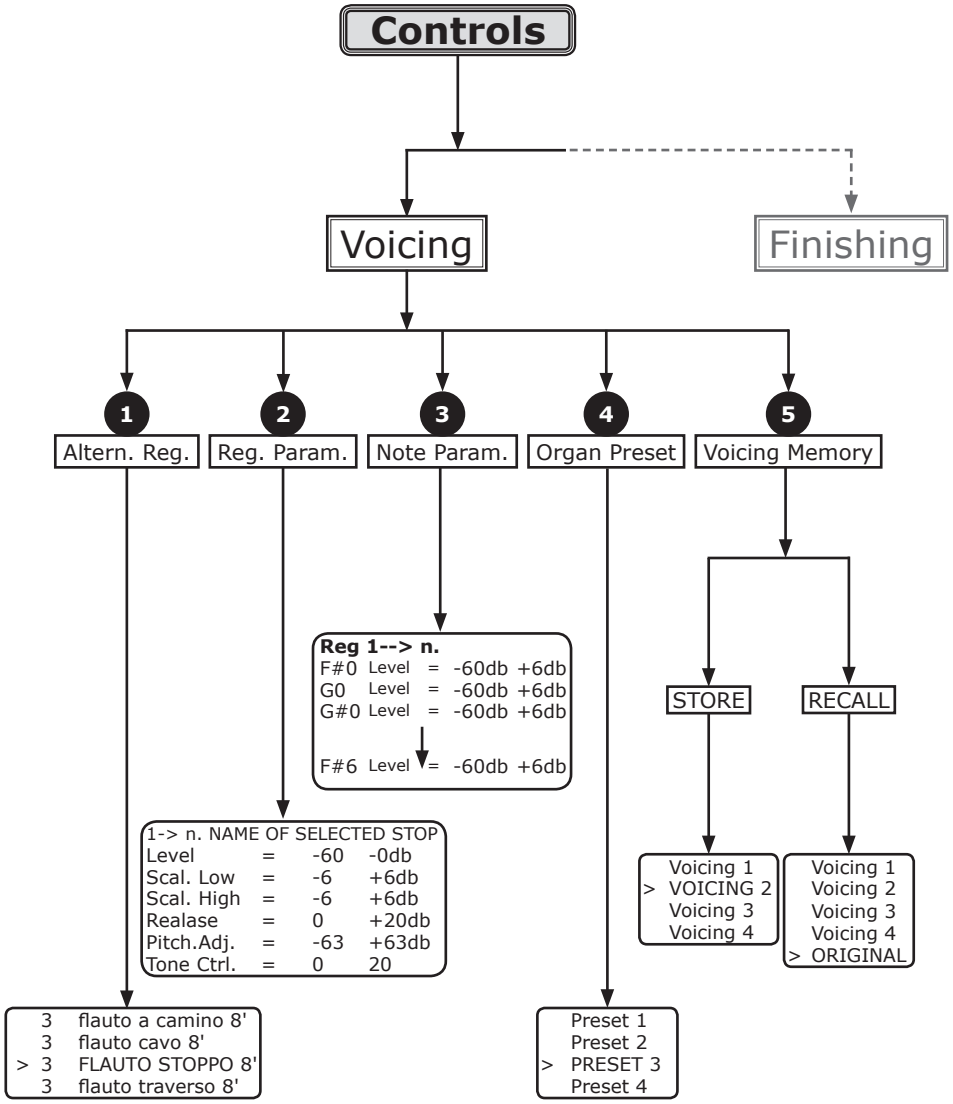
1 The selected function "**VOICING**" will show on the display the controls relative to the single tab. Press "**ENTER**" to make a selection.

2 Press ◄ DECR. o INCR. ► buttons to select one of the controls (described in point 1) marked by circled numbers.

3 Press "**ENTER**" to confirm the selection.

4 In the display, the squares with smooth corners will show the voices, contained within a single control (see **NOTE**). They can be selected by using the ◄ DECR. or INCR. ► buttons.

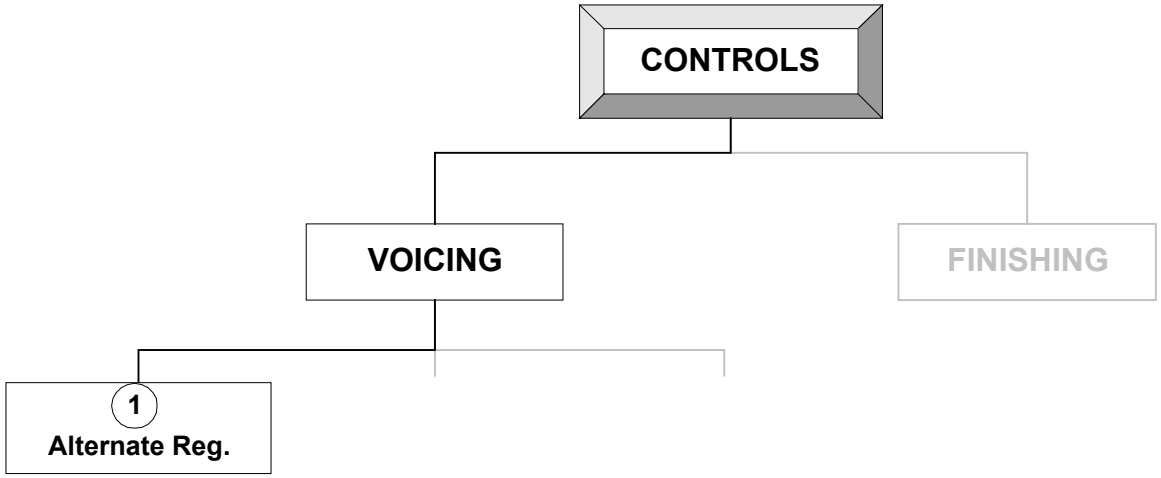
5 The selected voice will always be written with CAPITAL LETTERS, while the other voices will be written with small letters. To exit this control, press "**EXIT**".



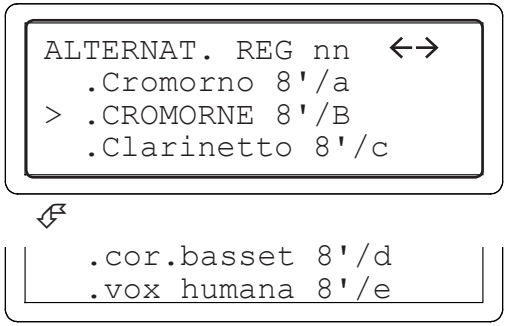
● ***NOTE : The parameters contained within the numbered squares, are described in the following pages.***

ALTERNATIVE STOPS

As mentioned in the Foreword, the organ has many "**Alternative Stops**". By entering this control, the display will show the list of stops available in a single numbered tablet. A letter of the alphabet marks every alternative stop.



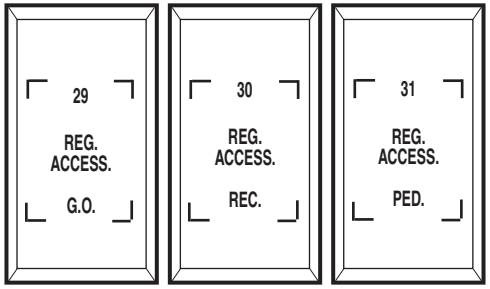
Example:



REMINDER:
For a fast selection of the stops contained in the various tablets, press the chosen tablet for about two seconds: the display will show the name of the alternative stops available for this tablet.

ACCESSORY STOPS

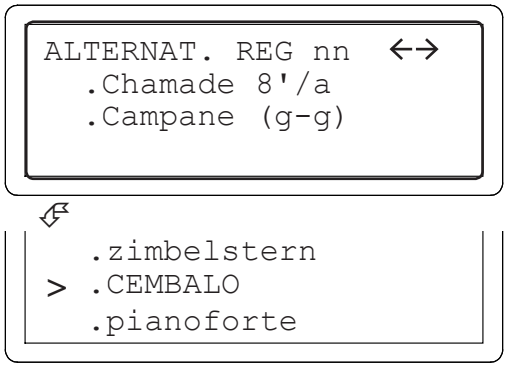
Use the same procedure for the "**Accessory Stops**" three numbered tablets positioned in the front of the organ:



Press the selected tablet for two seconds; the display will show the names of all **accessory stops** available in the organ.

Stops can be inserted in one or more sections (G.O./Rec./Ped.) and are operated by activating the respective tablets.

Example:

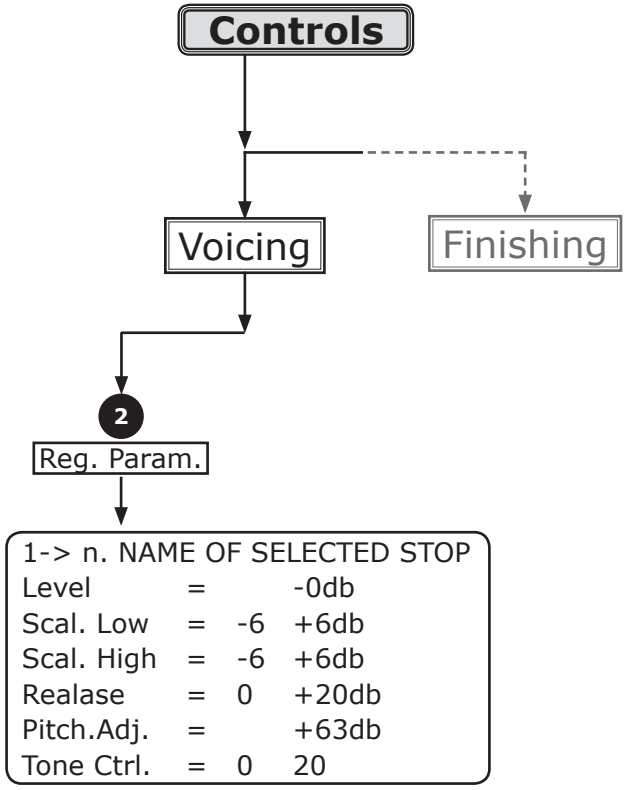


***NOTE**: The "Zimbelstern" stop (rotating star with bells) is not connected to the manuals or to the pedalboard, but is activated or deactivated through the tablet.*

VOICING (Reg. Parameters)

With this control it is possible to modify in his values the following parameters of **"voicing"** for each single stop:

1	**LEVEL**
2	**SCALING**
3	**RELEASE**
4	**PITCH ADJUSTMENT**
5	**TONE CONTROL**



REMINDER:
For a fast selection of the stops contained in the various tablets, press the chosen tablet for about two seconds: the display will show the name of the alternative stops available for this tablet.

1 LEVEL

With this control, it is possible to increase or decrease the volume of each stop.

VALUE RANGE	from	0 dB (maximum level)	to	- 60 dB(OFF level)

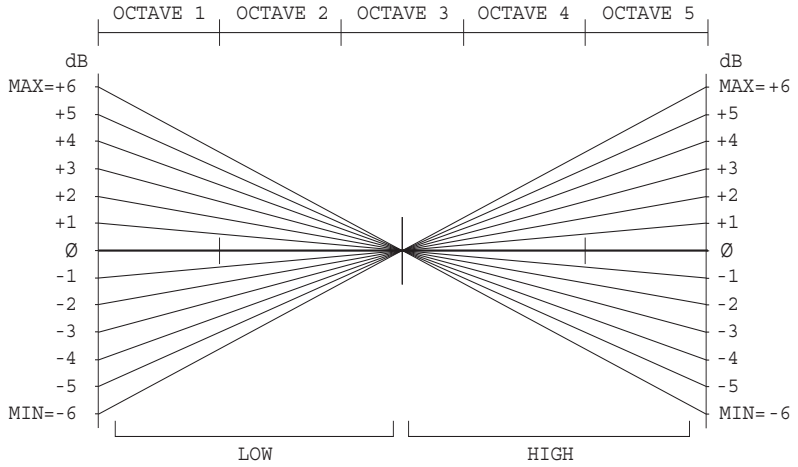
2 SCALING

With this control, it is possible to gradually increase or decrease the cound volume of extreme parts (bass and treble) of a single stop.

VALUE RANGE	SCALING LOW (bass part)	from	-6dB	to	+6dB
	SCALING HIGH (treble part)	from	-6dB	to	+6dB

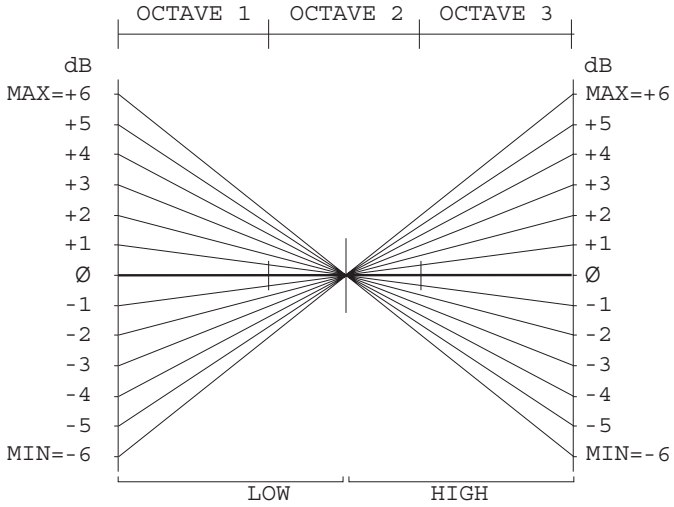
A EXTENSION OF THE ADJUSTMENTS IN THE MANUAL STOPS

LOW (bass part)	=	From C1 to F3
HIGH (treble part)	=	To F#3 to C6



B EXTENSION OF THE ADJUSTMENTS IN THE PEDAL STOPS

LOW (bass part)	=	From C1 to F2
HIGH (treble part)	=	From F#2 a G3



3 RELEASE

With tihs control, it is possible to regulate the effect which simulates the moment the organ pipe ceases to sound after release of the key.

VALUE RANGE: from 0 to 20
The **0** position corresponds to the total absence of release sound.

IMPORTANT REMINDER
When the calue is different from 0, the organist may check the range of release value through the touch.

4 PITCH ADJUSTMENT

•RECIPROCAL TUNING RELATIONSHIP BETWEEN SEVERAL STOPS.

With this control, it is possible to create various acoustic undulations between stops in order to avoid an unnatural sound inactivity of the ensemble. This regulation should be carried out by inserting TWO OR MORE STOPS (even on different sections with Couplers), one of which will be the object of the regulation with respect to the others.

VALUE RANGE	from	- 63	to	+ 63

The intermediate 0 position corresponds to the total absence of acoustic undulations.
Negative values FLATTEN the sound, and positive values SHARPEN the sound.

Example:

Stops		I case	II case	III case
Principal 8'		+26	+32	+37
Flute 8'		+13	-10	-18
	diff.	13	42	55

Case I	light undulation
Case II	strong undulation
Case III	very strong undulation

It is advisable to establish larger differences for the low stops (16' - 8') and smaller differences for the higher stops (4' - 2' Mutations-Mixtures), as the undulation effect turns out to be very marked with the latter. Given the complex and delicate nature of this variation, the organist can avoid extreme and unnatural solutions, by following his/her musical awareness. This control regulates also the speed of the acoustic undulation of the organ' s undulating stops (as Unda maris/Vox coelestis, etc.).

IMPORTANT REMINDER
The PITCH ADJUSTMENT control is strictly related to the value assigned to the ENSEMBLE control (see description in page 38). It is recommended to regulate it at a medium level (2 or 3) before starting the current adjustment.

4 TONE CONTROL

With this control, it is possible to reduce (filter) the high frecuency portion of each stop.

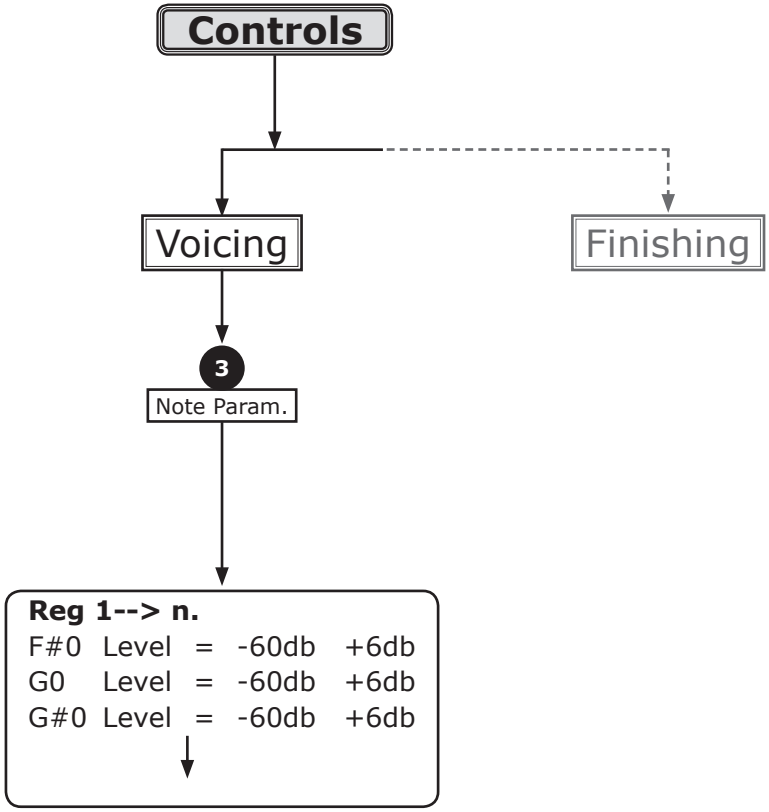
VALUE RANGE	from	0 (maximum filtering)	to	20 (absent filtering)

VOICING (Note Parameters)

Acces to this control is possible to regulate the volume of each note in each single stop:

VALUE RANGE	from	+ 6 dB (maximum level)	to	-60 dB (OFF level)

This control is especially useful when undesirable resonance acoustic effects occur on some notes of a stop.



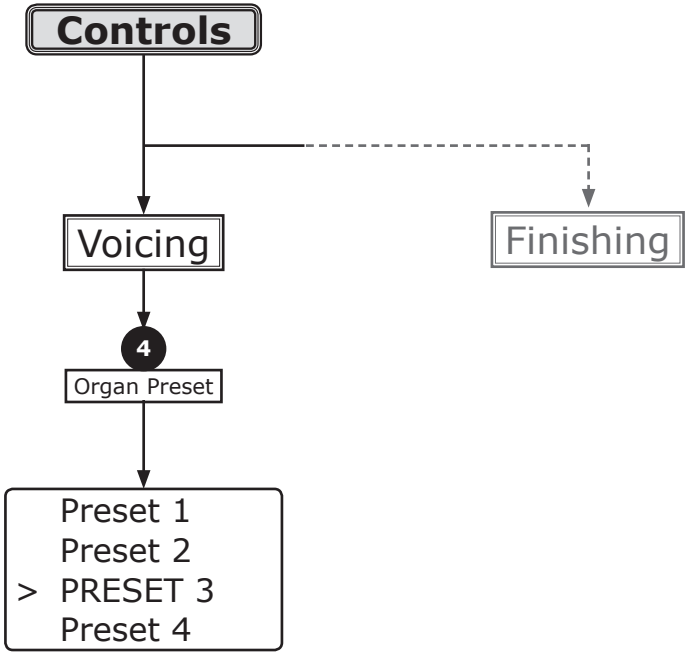
REMINDER!

1) For a fast selection of the stops contained in the various tablets, press the chosen tablet for about two seconds: the display will show the name of the alternative stops available for this tablet.

2) For a fast note selection, simultaneously press the "F" Fixer and the note (Manual I) you intend to modify.

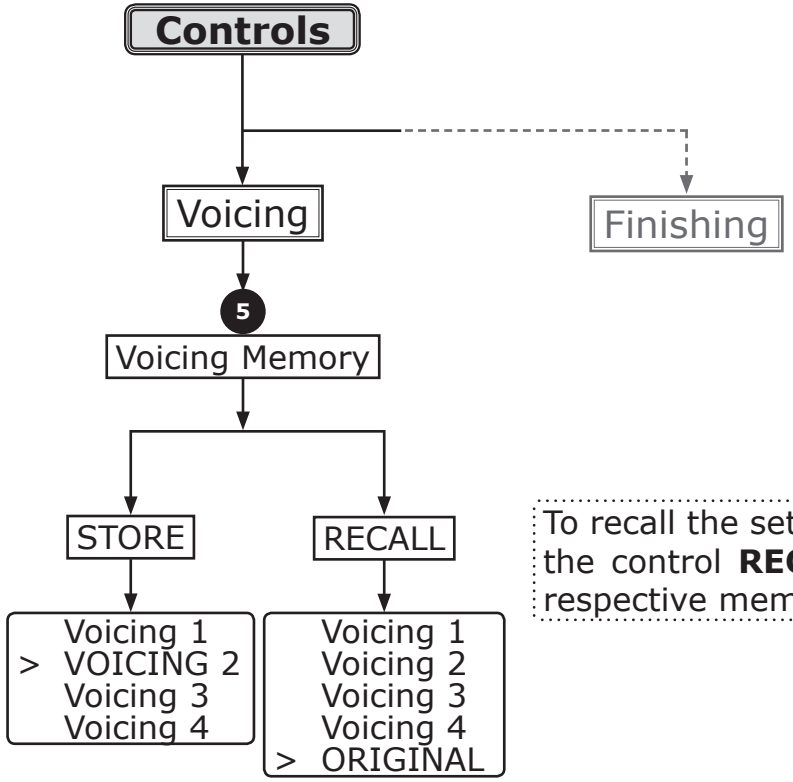
ORGAN PRESETS

With this control, it is possible to select one of the four configurations of alternate stops (Presets) set by the factory for the entire organ.



STOP SETTING AND RECALL

The organist may select the alternative and accessory tabs to enable the organ single tablets. His programmation comprend also all the voicing data (see from page 18 to 22), thus creating his own voicing settings for the entire organ or part of it.



Then, by entering the control **STORE**, it is possible to store them in one of the four available memories.

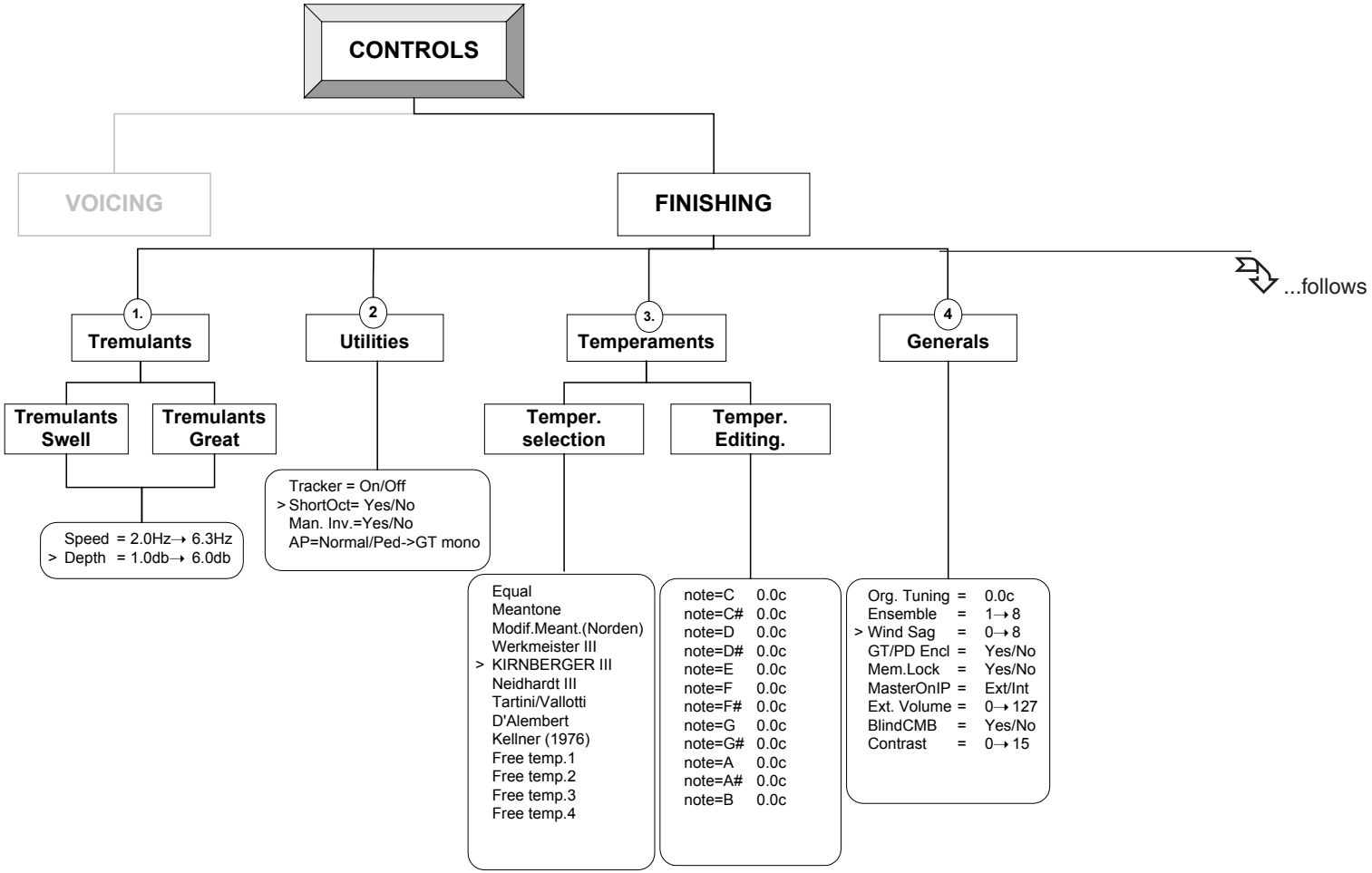
To recall the set configuration, enter the control **RECALL** and select the respective memory number.

The position **ORIGINAL**, resets the basic factory configuration.

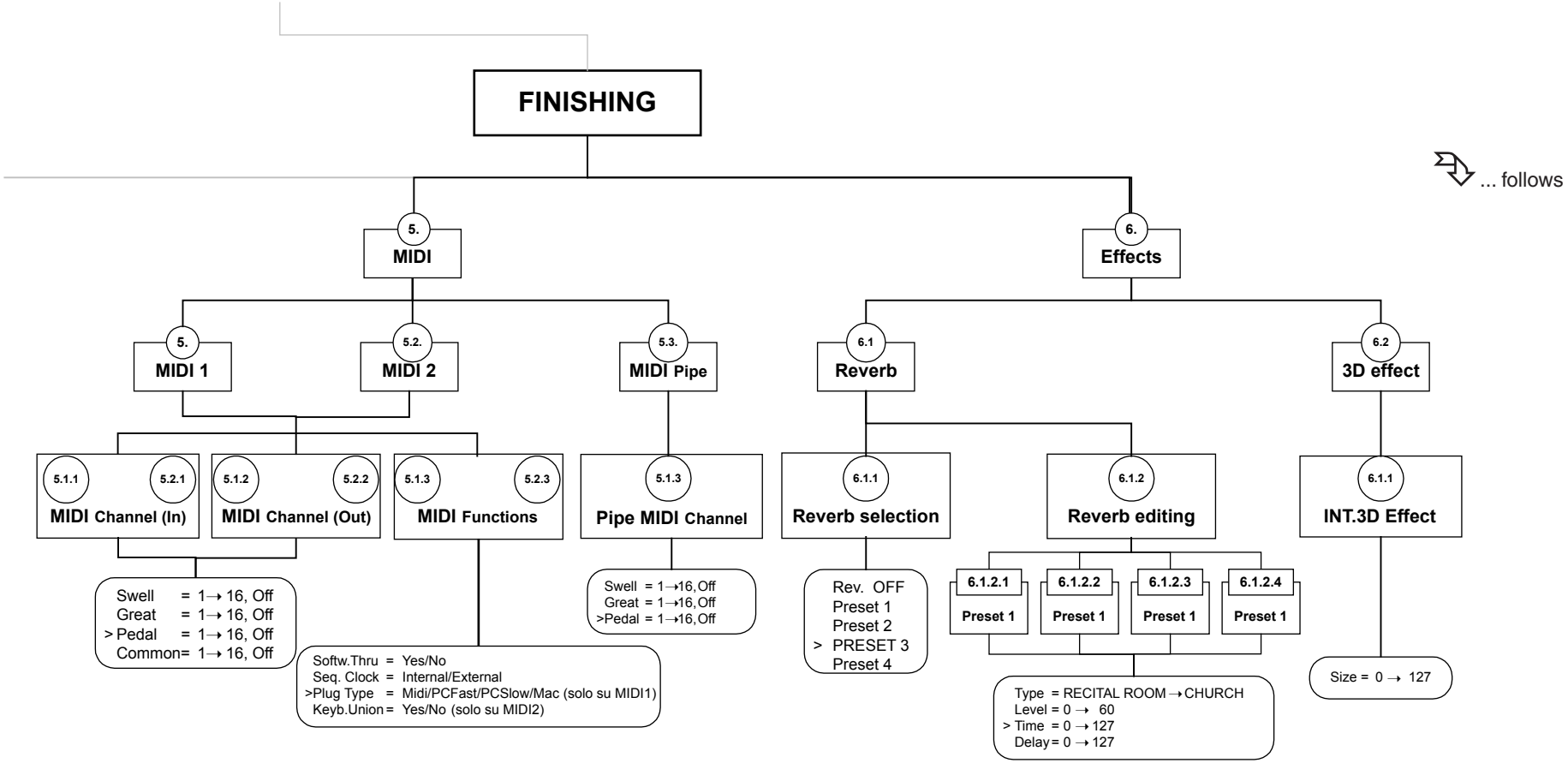
SYSTEM PANEL N. 2 "FINISHING"

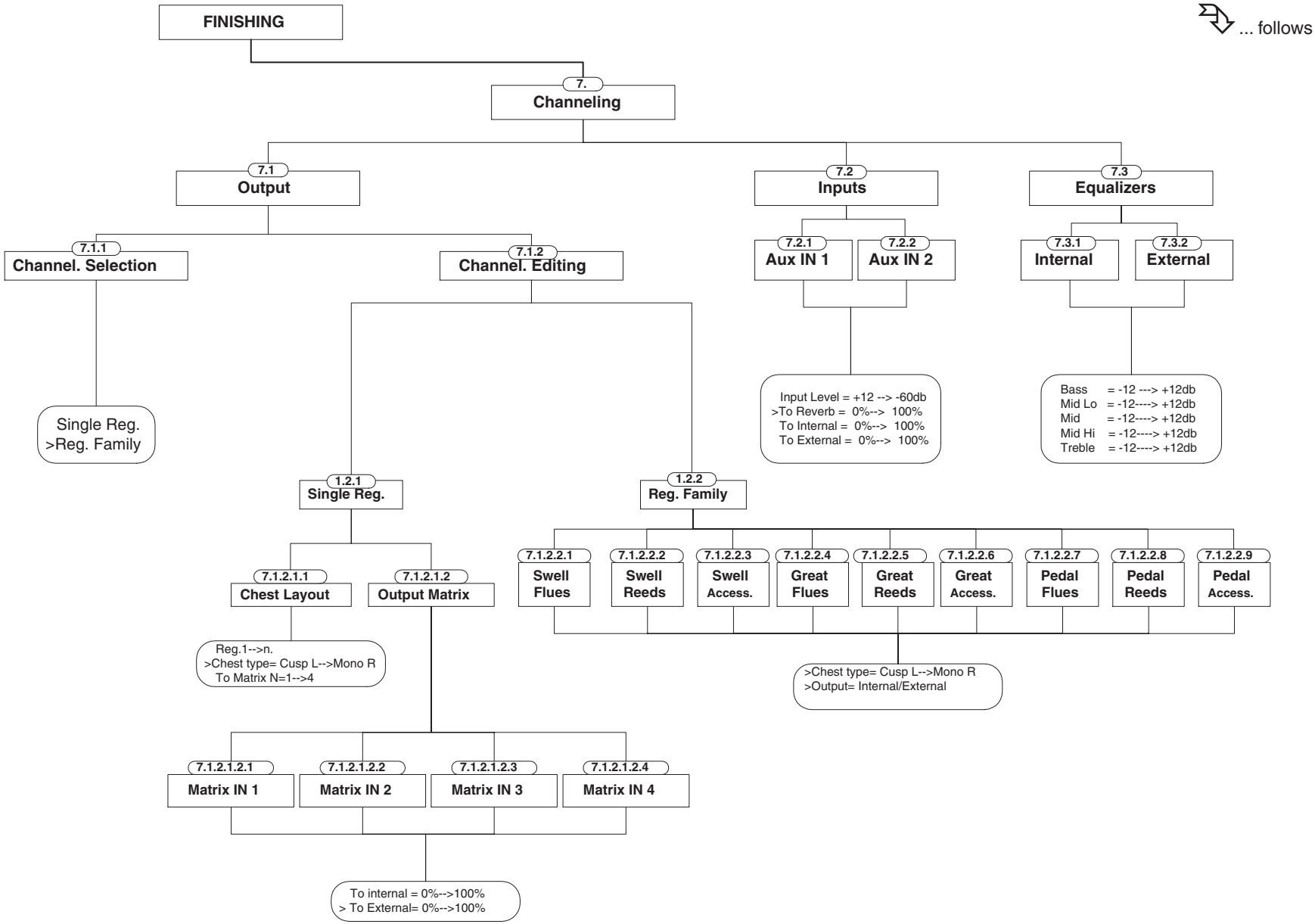
1 Selecting the function "**FINISHING**", the display will show the seven general controls of the instrument (see the following page).

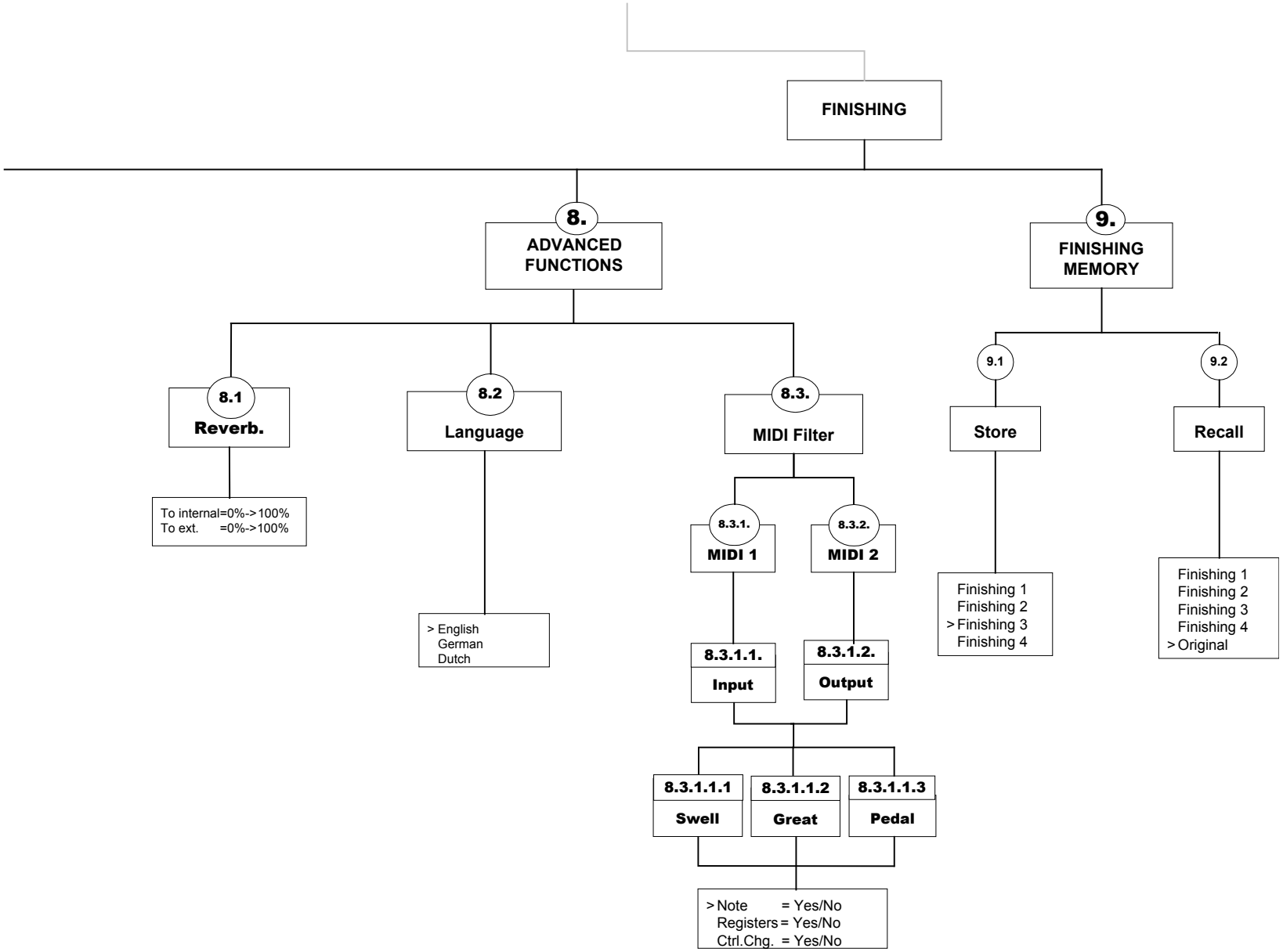
2 Press ◄ DECR. or INCR. ► buttons to select one of the nine controls described in point 1 and marked by the circled number (see **NOTE 1**).



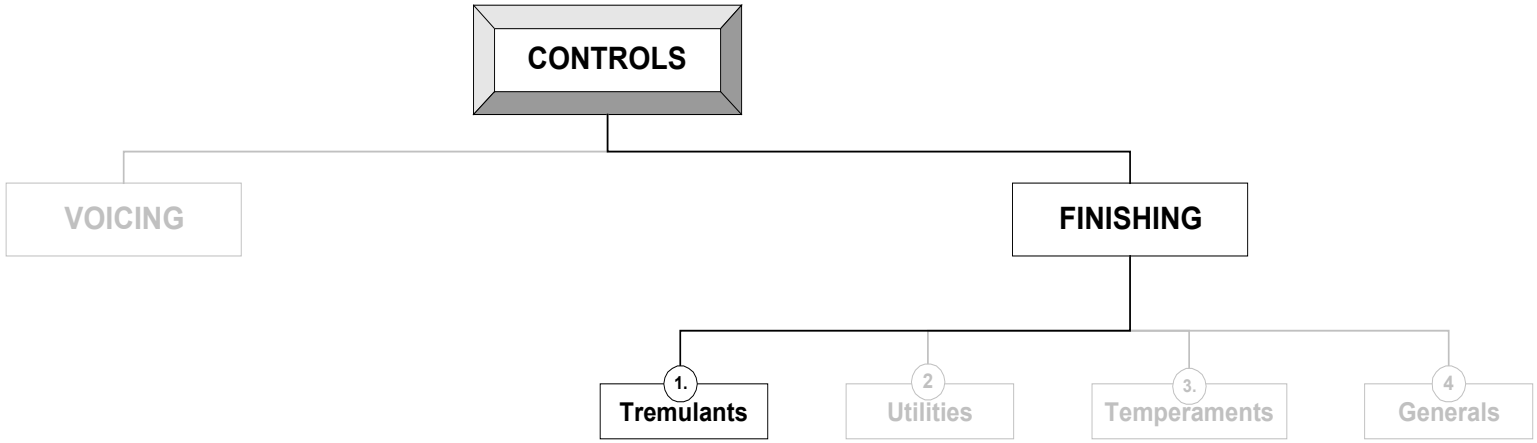
***NOTE 1*: Circled numbers always marks the controls. When the number is followed by a dot (see controls n. 1 and 3) it means that the control contains other sections that can be selected by using the ◄ DECR. or INCR. ► buttons.**


FINISHING
... follows
5. MIDI
6. Effects
5. MIDI 1
5.2. MIDI 2
5.3. MIDI Pipe
6.1 Reverb
6.2 3D effect
5.1.1 5.2.1 MIDI Channel (In)
5.1.2 5.2.2 MIDI Channel (Out)
5.1.3 5.2.3 MIDI Functions
5.1.3 Pipe MIDI Channel
6.1.1 Reverb selection
6.1.2 Reverb editing
6.1.1 INT.3D Effect
Swell = 1→16, Off
Great = 1→16, Off
> Pedal = 1→16, Off
Common = 1→16, Off
Softw.Thru = Yes/No
Seq. Clock = Internal/External
>Plug Type = Midi/PCFast/PCSlow/Mac (solo su MIDI1)
Keyb.Union = Yes/No (solo su MIDI2)
Swell = 1→16, Off
Great = 1→16, Off
>Pedal = 1→16, Off
Rev. OFF
Preset 1
Preset 2
> PRESET 3
Preset 4
6.1.2.1 Preset 1
6.1.2.2 Preset 1
6.1.2.3 Preset 1
6.1.2.4 Preset 1
Type = RECITAL ROOM→CHURCH
Level = 0 → 60
> Time = 0 → 127
Delay = 0 → 127
Size = 0 → 127


... follows
FINISHING
7.
Channeling
7.1
Output
7.2
Inputs
7.3
Equalizers
7.1.1
Channel. Selection
7.1.2
Channel. Editing
7.2.1
Aux IN 1
7.2.2
Aux IN 2
7.3.1
Internal
7.3.2
External
Single Reg.
>Reg. Family
Input Level = +12 --> -60db
>To Reverb = 0%--> 100%
To Internal = 0%--> 100%
To External = 0%--> 100%
Bass = -12 ---> +12db
Mid Lo = -12----> +12db
Mid = -12----> +12db
Mid Hi = -12----> +12db
Treble = -12----> +12db
1.2.1
Single Reg.
1.2.2
Reg. Family
7.1.2.1.1
Chest Layout
7.1.2.1.2
Output Matrix
7.1.2.2.1
Swell Flues
7.1.2.2.2
Swell Reeds
7.1.2.2.3
Swell Access.
7.1.2.2.4
Great Flues
7.1.2.2.5
Great Reeds
7.1.2.2.6
Great Access.
7.1.2.2.7
Pedal Flues
7.1.2.2.8
Pedal Reeds
7.1.2.2.9
Pedal Access.
Reg.1-->n.
>Chest type= Cusp L-->Mono R
To Matrix N=1-->4
>Chest type= Cusp L-->Mono R
>Output= Internal/External
7.1.2.1.2.1
Matrix IN 1
7.1.2.1.2.2
Matrix IN 2
7.1.2.1.2.3
Matrix IN 3
7.1.2.1.2.4
Matrix IN 4
To internal = 0%-->100%
> To External= 0%-->100%


FINISHING
8.
ADVANCED FUNCTIONS
9.
FINISHING MEMORY
8.1
Reverb.
To internal=0%->100%
To ext. =0%->100%
8.2
Language
> English
German
Dutch
8.3.
MIDI Filter
8.3.1.
MIDI 1
8.3.2.
MIDI 2
8.3.1.1.
Input
8.3.1.2.
Output
8.3.1.1.1
Swell
8.3.1.1.2
Great
8.3.1.1.3
Pedal
> Note = Yes/No
Registers = Yes/No
Ctrl.Chg. = Yes/No
9.1
Store
Finishing 1
Finishing 2
> Finishing 3
Finishing 4
9.2
Recall
Finishing 1
Finishing 2
Finishing 3
Finishing 4
> Original

TREMULANT SPEED AND DEPTH



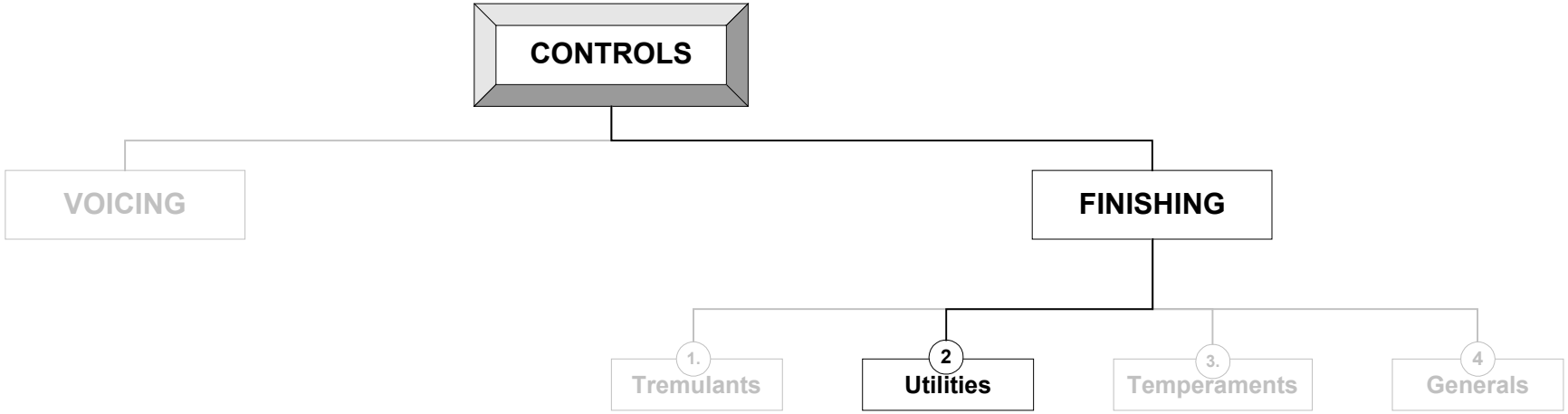
With this control it is possible to regulate the Tremolo SPEED and DEPTH, for each section (Swell and Great). These controls affect the amplitude modulation as well as the frequency modulation.

VALUE RANGE:	
SPEED:	from 2.0 to 6.3 Hz
DEPTH:	from 1.0 to 6.0 dB

Enter the control in the desired section (Swell / Great), as illustrated in SYSTEM PANEL N. 2. Insert (by means of the organ tablets) one or more stops of your choice, together with TREMOLO. It is advisable to attempt separate adjustments for flue stops and reed stops, in order to obtain a correct result valid for both families.

Recommended combinations:
FLUES: Bourdon 8' alone /Viola da gamba 8' alone/Bourdon 8' + Nazardo 2 2/3'
REEDS: Oboe 8' alone (or other 8' reed)

USEFUL FUNCTIONS (MANUAL AND PEDALBOARD)



With this control it is possible to have access to useful functions pertaining to the organ general setting:

1	**TRACKER TOUCH**	(Mechanical Action)
2	**SHORT OCTAVE**	(The first lower octave set as in some antique organs)
3	**MAN. INVERSION**	(Manuals Inversion)
4	**AUTOMATIC PEDAL**	(Dual function for the Automatic Pedal)

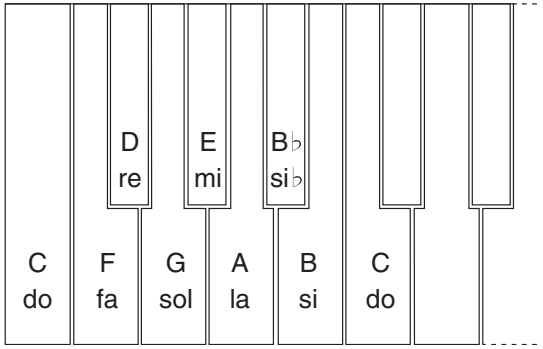
1 TRACKER TOUCH (Mechanical action)

As indicated in the foreword, this organ offers pipe organ touch with mechanic transmission, working on the sound start and release.

To insert this function, set the control to ON. When in the OFF position, the organ will return to the normal function.

2 SHORT OCTAVE (The first lower octave set as in some antique organs)

In many European countries, but especially in Italy and Spain, antique organs from the 16th to the 18th century, frequently had the first octave of the keyboard and pedalboard, following this sequence:



This is called "short octave". The music originally written for these organs is difficult or impossible to execute on keyboards with normal extension. This function may also be useful to the organist to study musical pieces to be performed on antique organs with "short octave". To insert this function, set the control on the YES position.

REMINDER !
To avoid errors or confusion, this control should be set on the normal NO position when the function is not required. Remember that when set on the YES position (the short octave is ON) the first 4 notes, from DO to RE#, are NOT FUNCTIONING.

3 MANUAL INVERSION (Manuals Inversion)

The inversion is possible with: GREAT on man. II /SWELL on man. I This function can facilitate the execution of certain organ works and can be useful for studying in preparation for playing a pipe organ with a different manual configuration. To insert this function, set the control on the YES position.

REMINDER !
To avoid errors or confusion, this control should be set on the normal NO position when the function is not required.

4 AUTOMATIC PEDAL (Dual function for the Automatic Pedal)

With this control it is possible to select one of the following AUTOMATIC PEDAL functions:

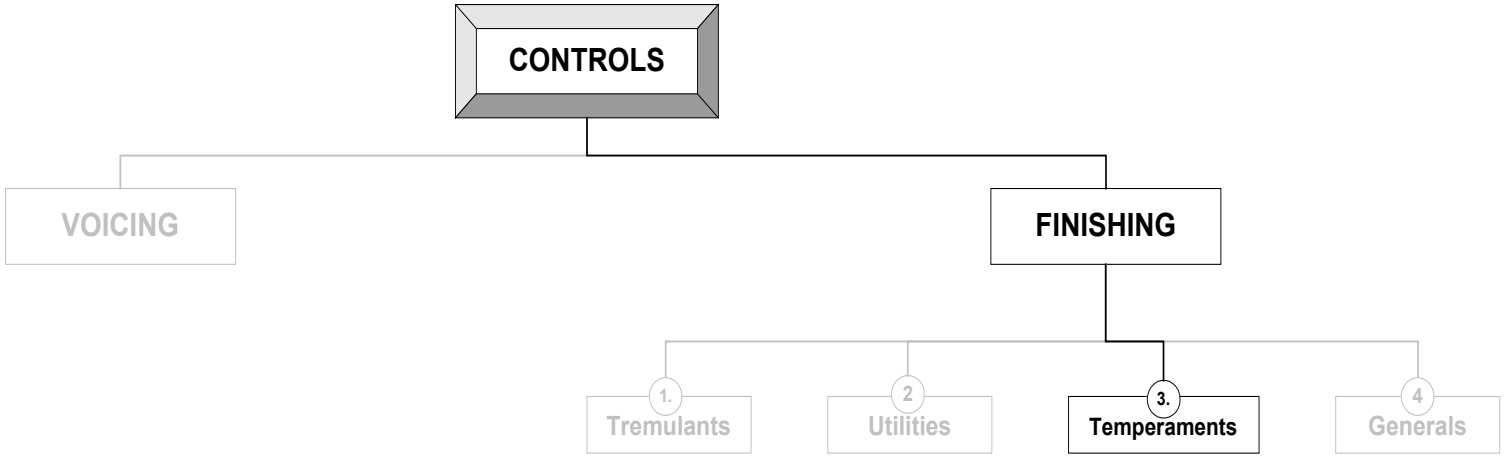
1) **Normal**
   The normal functioning of AUTOMATIC PEDAL and its programmability have been illustrated at page 6 of this User's Manual ➢ INTRODUCTION.

2) **PED → GT mono** (Monophonic union of Great and Pedal stops).
   This is a special function offered in addition to the normal **AUTOMATIC PEDAL**.
   Insert one or more stops in the Pedal, then play the Great manual. The stops will couple with the keyboard "monophonically": that is, they adjust to the lowest pitched note of the chord.
   This happens automatically in the first two and a half octaves of the keyboard (DO-1/SOL-3).
   This function can be useful to obtain more support when accompanying choral singing, without using the pedalboard.

To select the normal functioning of the automatic pedal, set on the **Normal** position. To select the monophonic function, set on PED.→ GT mono.

REMINDER !
To avoid errors or confusion, this control should be set on the Normal position when the function is not required.

HISTORICAL TEMPERAMENTS AND EDITING



This control offers the organist interested in the accurate interpretation of ancient music a selection of historical temperaments from various ages and countries.

TEMPERAMENT SELECTION

Entering this control (follow SYSTEM PANEL N. 2) it is possible to select the following 9 historical temperaments and 4 free temperaments to edit:

1	**EQUAL**	This is the normal temperament in use today.
2	**MEANTONE**(1/4syntonique comma).	In use from the 16th to the 18th century throughout Europe.
3	**MODIFIED MEANTONE**	Developed in 1688 for the organ "Schnitger" of the Ludgeri Church in Norden, Germany.
4	**WERCKMEISTER III**	Proposed in 1691 by the organist and musical theoretician Andreas Werckmeister, it is recommended for the German musical repertoire of the period from the end of the 17th century until the 18th century.
5	**KIRNBERGER III**	This temperament, elaborated by Johann Philipp Kirnberger (Bach's pupil), is suitable for the execution of late Baroque music.

6	**NEIDHARDT III**	This temperament is quite similar to the Equal. It was developed in 1724 by the musical theoretician Johann Georg Neidhardt.
7	**TARTINI-VALLOTTI**	This Italian temperament, developed in 1754 by Francescantonio Vallotti and described by Giuseppe Tartini, was later revived in England by Thomas Young. It can be effectively used for the 18th century Italian repertoire.
8	**D'ALEMBERT**	This temperament, described in 1752 by Jean Le Rond D'Alembert, represents the "accord ordinaire" in use in France in the 17th and 18th century. It is therefore suitable for French music of that period.
9	**KELLNER**	This is a modern temperament elaborated in 1976 by the musicologist Herbert Anton Kellner for the execution of Bach music. It is based on theological concepts associated to the mystic of numbers.

Memories available for the organist to edit the temperaments.	
10	**FREE TEMP. 1**
11	**FREE TEMP. 2**
12	**FREE TEMP. 3**
13	**FREE TEMP. 4**

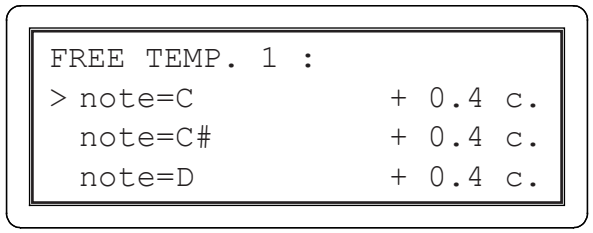
TEMPERAMENT EDITING (programmable temperaments)

Four temperaments can be edited (follow SYSTEM PANEL N.2); especially sections called:

FREE TEMPERAMENT 1 - 2- 3- 4.

The system used is that of "value ratio in cents" (+ or -) with respect to the normal equal temperament (value 0.0).

Temperament operation is executed on one octave of the keyboard (from C to B) and the values given to each single note are automatically transmitted in "real time" to the ENTIRE ORGAN. It is strongly advisable to execute all the acoustic trials using the central octave (C3-B3) of the Great, with the Principal 8' stop, as the point of reference. This allows an accurate evaluation of the acoustic undulations of the intervals examined to develop the temperament.



1 Disable all stops and insert only PRINCIPAL 8' of the Great

2 Follow the instructions illustrated in pages 12-13 of this User's Manual, ➢ SYSTEM PANELS, to come to the chosen FREE TEMP. and start to edit your temperament (see example on the display);
The value of each note increases or decreases of 1/10 cents (0.1).

REMINDER !

1) The TONE TRANSPOSER of the instrument functions only when you insert the normal temperament EQUAL (Equal A-440). When the historical temperaments or temperaments to edit are in use, the Transposer is automatically disabled.

2) Historical temperaments and temperaments to edit function only on DIAPASON LA-440. To modify the diapason, use control ORGAN TUNING, and follow the instructions illustrated in section "Generals" of this User's Manual.

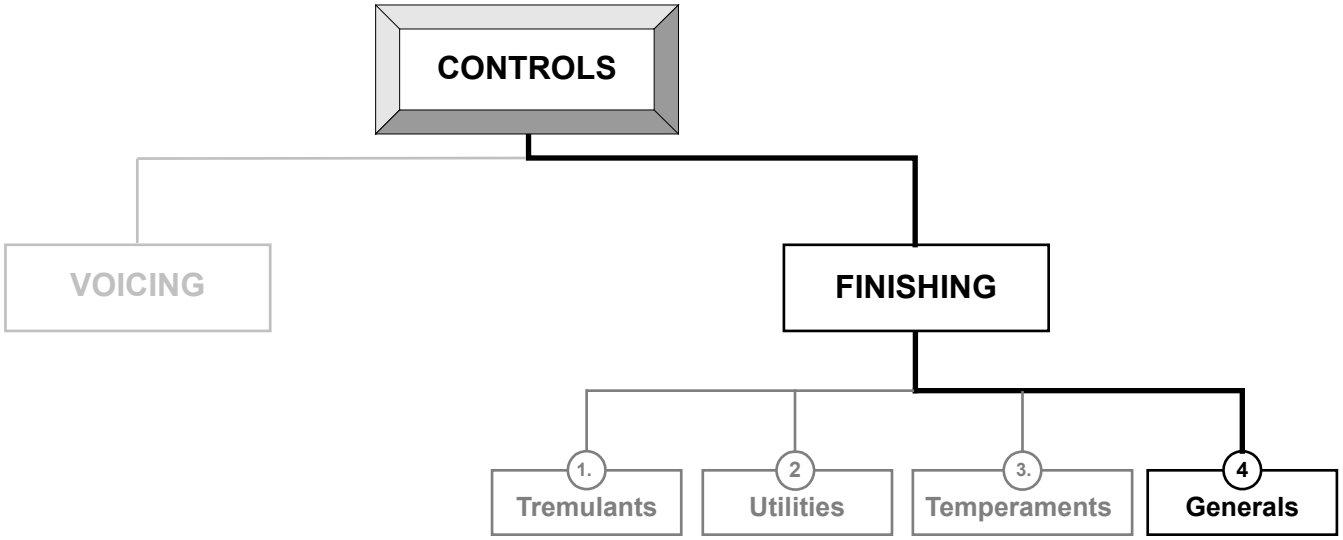
The notes are positioned in the following order (increasing or decreasing):

C
C#
D
D#
E
F
F#
G
G#
A
A#
B

REMINDER:
For a faster notes selection, PRESS SIMULTANEOUSLY the fixer "F" and the note that you wish to modify (from any octave of Manual I only).

***NOTE*: To edit temperaments it is necessary to have a theoretical as well as practical knowledge of the matter. However it can be easily carried out by following the tables of value ratio in cents for each note, supplied by specialized texts.**

MISCELLANEOUS AND ACCESSORY FUNCTIONS



With the control "**Generals**" (follow SYSTEM PANEL N.2) it is possible to have access to the many accessory functions which render the use of the instrument comfortable and versatile.

1	**ORGAN TUNING**	Fine pitch adjustment of the instrument
2	**ENSEMBLE**	Ensemble effect of the stops
3	**WIND SAG.**	(Slight reduction of pressure of the bellows in rich stops combinations)
4	**GREAT-PEDAL ENCLOSED**	Expression to the Great and Pedal
5	**MEM. LOCK**	Protection of adjustable and fixed combinations
6	**EXTERNAL VOLUME**	Volume adjustment of external amplification
7	**BLIND COMBINATION**	Show or hide the Crescendo and Presets contents
8	**CONTRAST**	Contrast adjustment in the display

1 **ORGAN TUNING** (Fine pitch adjustment of the instrument)

VALUE RANGE	
From -100.0 cents (- 1 semitone)	To + 100.0 cents (+1 semitone)

The intermediate position of 0.0 cents corresponds to the perfect tuning of the instrument, according to diapason LA - 440 Hz.

With this control it is possible to fine-tune the pitch of the organ in relation to another musical instrument (or to modify the diapason of an historical or programmable temperament).

2 **ENSEMBLE** (Ensemble effect of the stops)

With this control it is possible to increase or decrease the depth of the acoustic undulation among the various stops, having previously done an adjustment using the control PITCH ADJUSTMENT. If the undulation ratio between the stops is =0, the control ENSEMBLE will not work.

VALUE RANGE	
From 1 (minimum undulation)	To 8 (maximum undulation).

1 Insert (using the organ stops) a fairly rich stop, on the manuals as well as the pedal.

2 Reach the desired value and verify the ensemble effect.

3 **WIND SAG** (Slight reduction of pressure of the bellows in rich stops combinations)

With this control it is possible to create the typical bellows effect which, when playing the organ with rich stops combinations (such as Ripieni and Tutti),it will have a slight reduction of pressure.

Once the control has been set, it affects the polyphony singularly on every section, increasing the ensemble effect.

VALUE RANGE	
From 0 (absence of effect)	to 8 (maximum effect)

4 **GREAT-PEDAL ENCLOSED** (Expression to the Great and Pedal)

With this control the EXPRESSION pedal simultaneously controls the volumes for Swell Organ, Great Organ and Pedal disconnecting the relative slider controls.

This is the pedal to be used for this function:

Expression II (Swell)

REMINDER !
In normal operating conditions, ensure that the control is set to the NO position.

5 **MEM. LOCK** (Protection of adjustable and fixed combinations)

With this control it is possible to inhibit the fixing function on the adjustable combinations, fixed combinations (Mixture, Reeds, Tutti) and the contents of the Crescendo, thus avoiding the accidental modification of stop contents.

6 EXTERNAL VOLUME (Volume adjustment of external amplification)

With this control it is possible to adjust the volume of the possible external amplification connected with the organ.

VALUE RANGE	
From 0 (volume of external amplification excluded)	To 127 (maximum volume of external amplification)

7 BLIND COMBINATION (Show or hide the Crescendo and Presets contents) - see note -

With this control it is possible to visualize or not the Crescendo and Presets contents (Plenum I, Plenum II and Tutti).

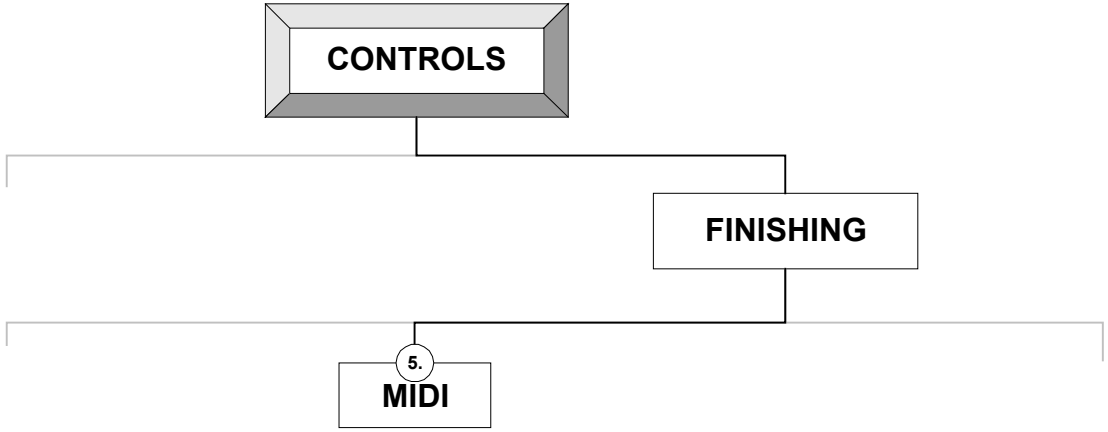
7 CONTRAST (Contrast adjustment in the display) - see note -

With this control it is possible to adjust the contrast on the liquid crystal display (4x20) of the front panel.

VALUE RANGE	
From 0	To 15

NOTE: for organs supplied with "CRESCENDO" pedal only

MIDI SETTING



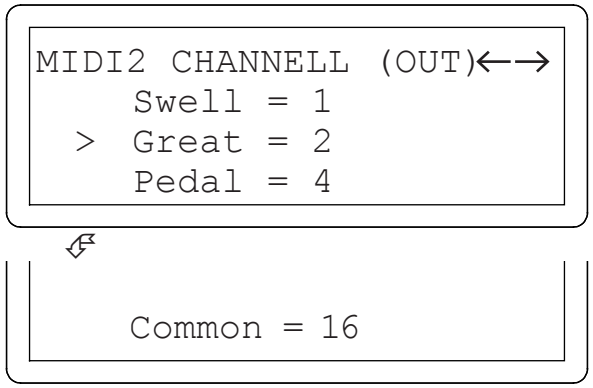
MIDI (**M**usical **I**nstrument **D**igital **I**nterface) is a standard code for interchange of data between musical instruments. The principal advantage of MIDI lies in the possibility of connecting different instruments by means of simple IN-OUT-THRU connections, permitting a reciprocal exchange of information. The information exchanged via MIDI concerns the primary operations carried out by the instruments. In practice, it is possible to "play" another MIDI compatible instrument by means of the organ keyboards, or vice-versa. Connecting, for example, the organ MIDI OUT socket to the MIDI IN socket of another instrument, it is possible to play both instruments by means of the organ keyboards and pedalboard. The MIDI THRU socket enables more than two instruments to be connected with one another, utilizing the first as principal transmitter. Two complete MIDI sockets (IN-OUT-THRU), which can be monitored independently, are available in the instrument. It is suggested to use the MIDI 2 socket for the installation of equipment to be connected permanently to the organ (i.e.: in combination with a pipe organ or with a classic organ Archive Module). The MIDI control (see SYSTEM PANEL N.2) offers the possibility to select, activate and deactivate the MIDI channels assigned to each organ section, separating all entering settings (MIDI IN) from exiting settings (MIDI OUT). It is also possible to select the use of the INTERNAL or EXTERNAL CLOCK in case of a connection of the organ via MIDI with an external Sequencer.

The control (see SYSTEM PANEL N.2) permits to execute the following MIDI settings:

1 MIDI 1

2 MIDI2

3 MIDI PIPE



1 MIDI 1

To select MIDI channels by section, both in entrance - MIDI Channel (IN) - and in exit - MIDI Channel (OUT) - it is possible to assign to the various sections (Swell-Great-Pedal and Common) a MIDI channel from 1 to 16 or to exclude it completely by positioning the channel on OFF. The display shows an example for the setting of MIDI 2 Channel (OUT). The following MIDI functions are also available:

A SOFTWARE THRU

By activating this control it is possible to pass all incoming MIDI messages (MIDI 1 IN) to the exit (MIDI 1 OUT) directly, without passing through the instrument. In this case the MIDI 1 OUT socket also operates the MIDI 1 THRU socket.

B SEQUENCER CLOCK

if the organ is connected via MIDI with the external Sequencer, it is possible to select the use of INTERNAL or EXTERNAL CLOCK with this control.

REMINDER !
If this function is set as External on MIDI 1, it will automatically be forced as Internal by MIDI 2.

C **PLUG TYPE** permits the following settings:

Midi	Qualification for the functioning of MIDI 1 socket (IN-OUT-THRU)
PC Fast/PC Slow	Qualification for the functioning of the COMPUTER socket for connections with PC/Windows. Should you encounter problems with PC Fast, it is suggested to use PC Slow.
MAC	Qualification for the functioning of the COMPUTER socket for a connection with Macintosh.

2 MIDI 2

Same functioning possibilities to select MIDI channels by section (Swell-Great-Pedal and Common) as described in previous paragraph MIDI 1.

The following MIDI functions are also available:

A SOFTWARE THRU

By activating this control it is possible to pass all incoming MIDI messages (MIDI 2 IN) to the exit (MIDI 2 OUT) directly, without passing through the instrument. In this case the MIDI 2 OUT socket also operates the MIDI 2 THRU socket.

B SEQUENCER CLOCK

If the organ is connected via MIDI with the external Sequencer, it is possible to select the use of INTERNAL or EXTERNAL CLOCK with this control.

REMINDER !
If this function is set as External on MIDI 2, it will automatically be forced as Internal by MIDI 1.

C KEYBOARDS UNION

By qualifying this function it is possible to transmit the notes MIDI codes of manual couplers also.

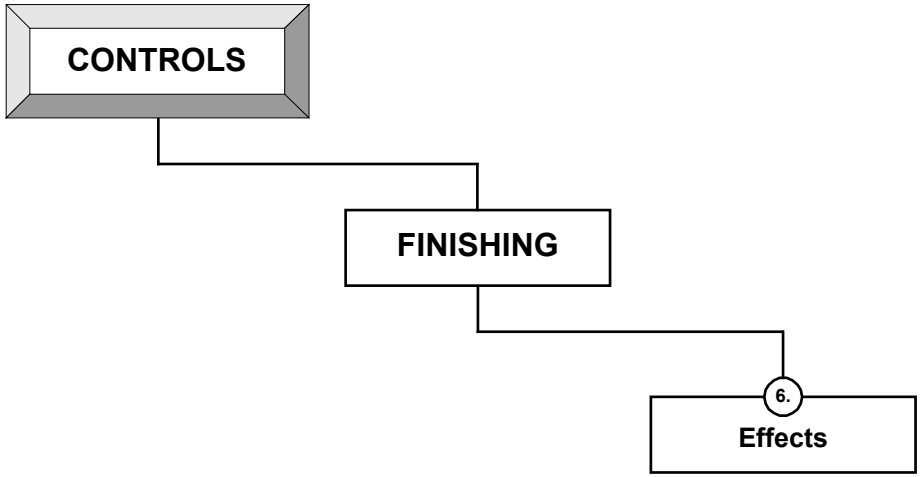
1 MIDI PIPE

This control is useful to coordinate the settings to select MIDI channels by section (Swell-Great-Pedal) in case there is a combination between the PRAELUDIUM III with a pipe organ, which is made possible thanks to the MIDI interface panel AHLBORN P.O.M.I. (Pipe Organ Midi Interface). It is possible to set the MIDI channel from 1 to 16, or set to OFF to completely exclude the organ section.

REMINDER !
The exit connection (MIDI OUT) can only be that of socket MIDI 2. It is suggested to set the section MIDI channels (Swell-Great-Pedal) differently from MIDI 2 OUT.

REMINDER!
If the clock is positioned on EXTERNAL (in one of the two MIDI sockets), the Sequencer incorporated in the organ WILL NOT FUNCTION.

EFFECTS



With the control "**Effects**" (follow SYSTEM PANEL N.2) it is possible to have access to the following effects, which permit an amplification of the instrument similar to that of an installation in large music halls.

1	**REVERB**	Selection and adjustment of reverberation effects
2	**3D EFFECT**	Adjustment to room size for the simulated effect

1 REVERB Selection and adjustment of reverberation effects

Entering this control it is possible to select the following two functions:

a Reverb Selection

The organist may deactivate completely (Rev. OFF) or recall one of the four reverberation configurations previously memorized in the organ (Preset).

b Reverb Editing

For every Preset it is possible to select:

Type	Type of digital reverberation in relation to the typical architectonic structures where the pipe organ is installed (Recital Room - Concert Hall - Church).
Level	Exit level of the reverberation effect on the amplification of the instrument (from a maximum of 0 dB to a minimum of -60 dB);
Time	Setting of decay time of the reverberation effect (from a minimum of 0 to a maximum of 127);
Delay	Setting of timing of the first reflection between the principal sound and the reverberation sound (from a minimum of 0 to a maximum of 127).

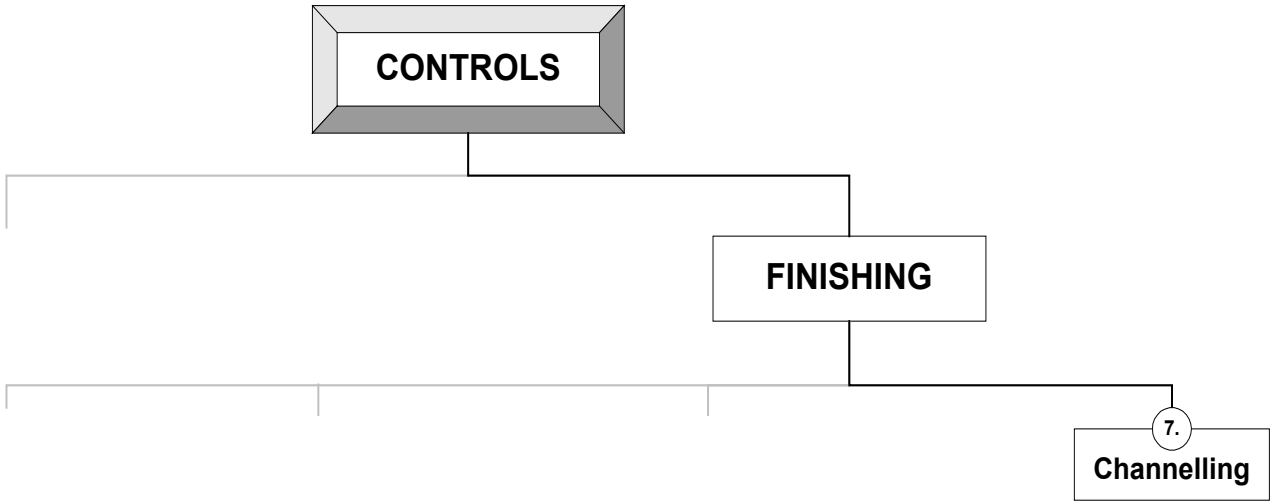
2 3D EFFECT (Adjustment to room size for simulated effect)

This effect permits a different spatial dimension of the sound of the instrument on the basis of tri-dimensional simulations of the room where the organ is installed

VALUE RANGE	From 0 (complete exclusion of the effect)	To 10 (maximum room size)

REMINDER
This effect operates only on the internal amplification of the instrument or when headphones are used.

CHANNELLING



This **CHANNELLING** function **(follow SYSTEM PANEL N°2)** allows access to the following three controls of sound channelling, for the internal as well as external amplification.

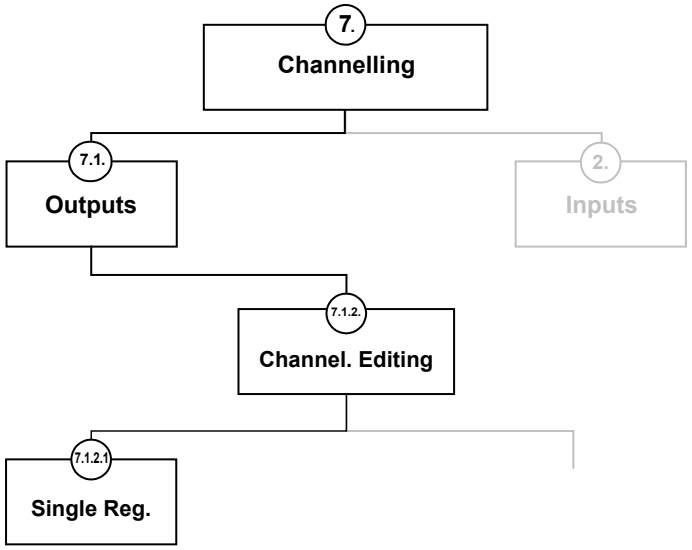
1	**Outputs**
2	**Inputs**
3	**Equalizers**

1 Outputs

This function allows access to the following two controls:

A	**Channel Selection**	Exit channelling mode, either for individual stops (**Single Reg.**) or for family of stops **(Reg. Family).**
B	**Channel Editing**	This control has two sections:
		• **Single Reg.** Differentiated channelling of the organ for each stop;
		• **Reg. Family** Differentiated channelling of the organ for family of stops.

Single Reg.



For each stop it is possible to select the wind-chest configurations (**Chest Layout**) and program the exit channelling system (**Output Matrix**).

IMPORTANT REMINDER
To listen to the modifications made on "**Single Reg.**" in real time, make sure that in "**Channel. Selection**" you select the operating mode "**SINGLE REG.**".

OUTPUT MATRIX

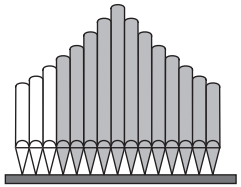
For a better understanding of the entire channelling system for individual stops, we start with the description of Output Matrix, instead of Chest Layout. Output Matrix is a channelling system organized by matrix; the structure has 4 inputs and 2 outputs. Each Output Matrix input (**Matrix IN 1**, **Matrix IN 2**, **Matrix IN 3**, **Matrix IN 4**) can be assigned to one or both outputs (INTERNAL/EXTERNAL) with different percentage of sound.

CHEST LAYOUT

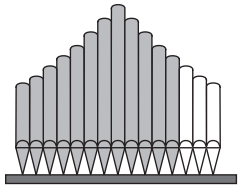
In this section it is possible to assign for each stop the type of wind-chest configuration **(Chest Type)** and the Output Matrix inputs where to send it to **(To MatrixIN)**. The **Chest Type** voice contains the following wind-chest configurations (acoustic simulation of the organ pipe's position on the corresponding wind-chest):

1 CENTRAL PEAK CONFIGURATION

Monophonic basses at the centre and progressive separation of the sound towards the treble (this configuration allows to optimise the efficiency of acoustic sound boxes in the basses).



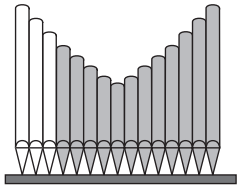
C side / C sharp side channelling (*)



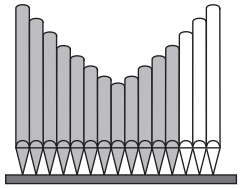
C sharp side / C side channelling (*)

2 LATERAL WINGS CONFIGURATION

Monophonic treble at the centre and progressive separation of the sound towards the basses.



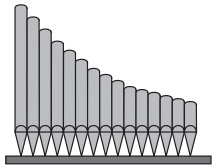
C side / C sharp side channelling (*)



C sharp side / C side channelling (*)

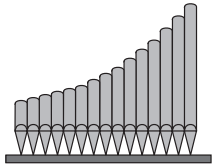
3 WING CONFIGURATION (from left)

Progression of the bass sounds towards the treble (from left to right)



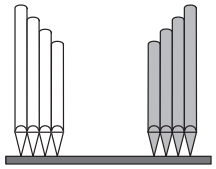
4 WING CONFIGURATION (from right)

Progression of the bass sounds towards the treble (from right to left).

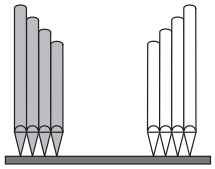


5 TOTAL SOUND SEPARATION

Total separation of the sounds (C side and C sharp side)



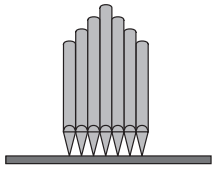
C side / C sharp side channelling (*)



C sharp side / C side channelling (*)

6 COMPLETE MONO CONFIGURATION

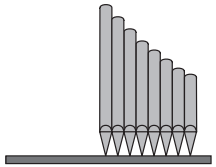
Monophonic exit of the sounds on both channels.



REMINDER !
To obtain best results from the external amplification system, for all channelling available in the instrument, always use the acoustic boxes in pairs.

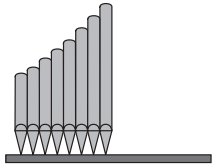
7 MONO CONFIGURATION - LEFT SIDE

Monophonic exit of the sounds on the left channel only



8 MONO CONFIGURATION - RIGHT SIDE

Monophonic exit of the sounds on the right channel only.

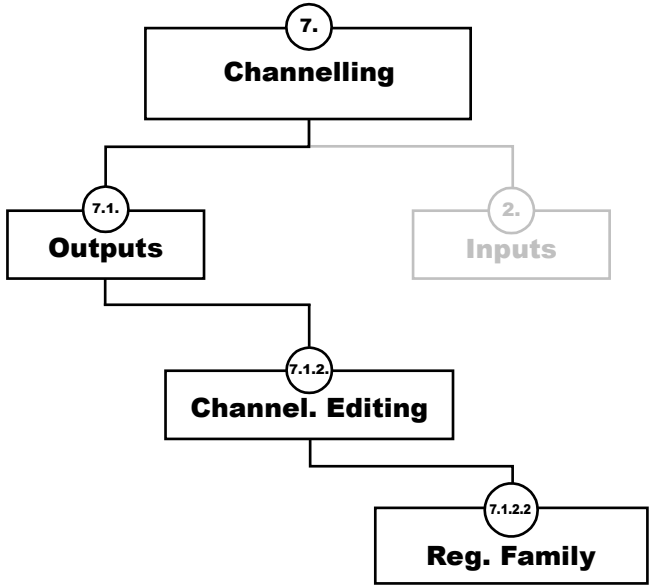


IMPORTANT REMINDER

Channelling C side/C sharp side": when the chromatic succession of sounds, starting from the lowest pitch, begins from the left channel.

Channelling C sharp side/C side": when the chromatic succession of sounds, starting from the lowest pitch,begins from the right channel.

Reg. Family differentiated channelling of the organ for family of stops.



For each family of stops in each section, it is possible to select one of the wind-chest configurations already described for **Single Reg.** (**Chest Type** paragraph in the previous pages), and to which outputs **(INTERNAL/ EXTERNAL)** you have to send the family of stops.

Stops from each organ section have been divided in the following three families:

Flues	All labial stops such as Principal, Flutes and Bourdon, Strings, Mixtures, Undulating Stops
Reeds	Reed stops such as Trumpet, Oboe, Cromorno, Regale, Vox Humana (the last ones are grouped to the right of each section and the corresponding tablets are written in red), etc.
Access.	All special stops grouped under the name "Accessories" (for more details see the chapter on page 17 of this User's Manual).

IMPORTANT INFORMATION
To listen to the modifications made on "**Reg. Family**" in real time, make sure to select the operating mode "**REG. FAMILY**" in "**Channel. Selection**".

2 Inputs

This function allows access to the following two controls: **(follow SYSTEM PANEL N. 2)**

A **AUX IN 1**

B **AUX IN 2**

Both controls allow to program the following voices:

• **Input Level**	Specific volume control.
• **To Reverb**	It selects whether to send AUX IN to the Reverberation effect and which percentage to use.
• **To Internal**	It selects whether to send AUX IN to the internal amplification and which percentage to use.
• **To External**	It selects whether to send AUX IN to the external amplification and which percentage To use.

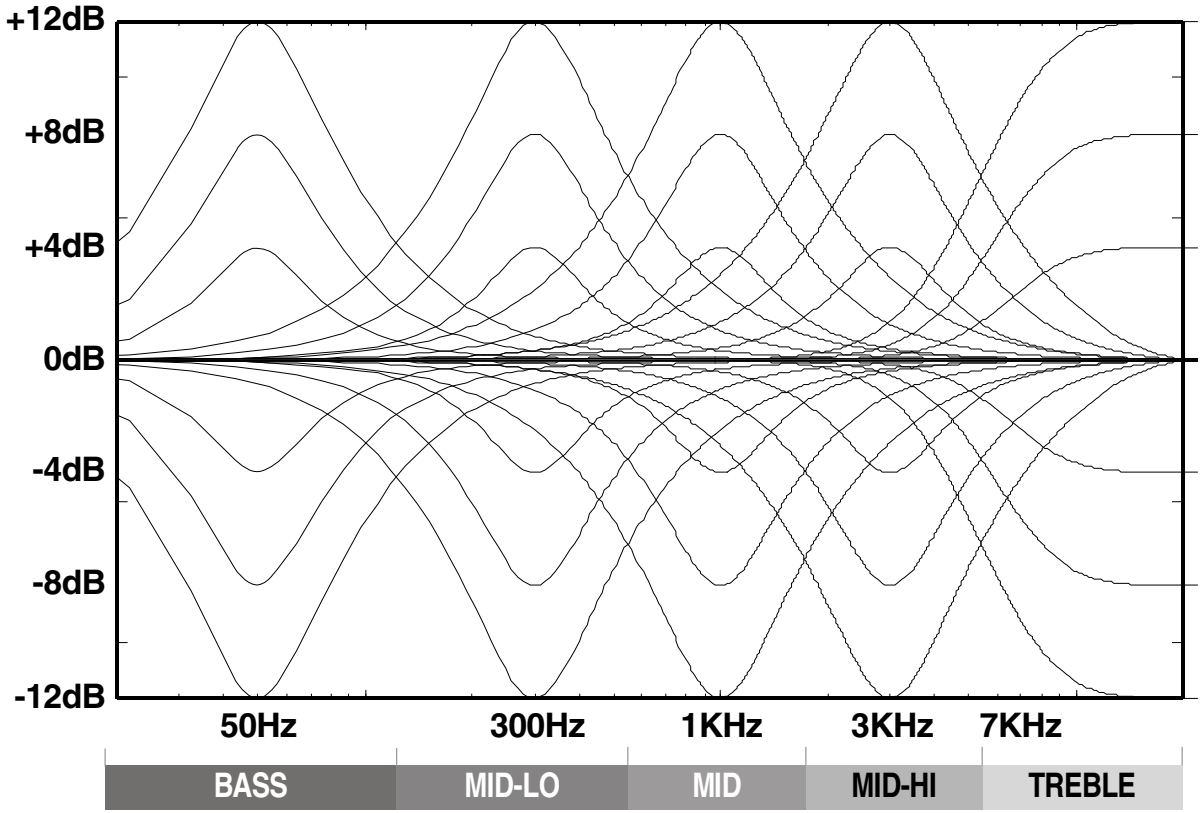
REMINDER !
The volume control set to the minimum range (-60) corresponds to OFF.

REMINDER !
The percentage set to 0% implies the total exclusion of the Reverberation effect.

3 Equalizers

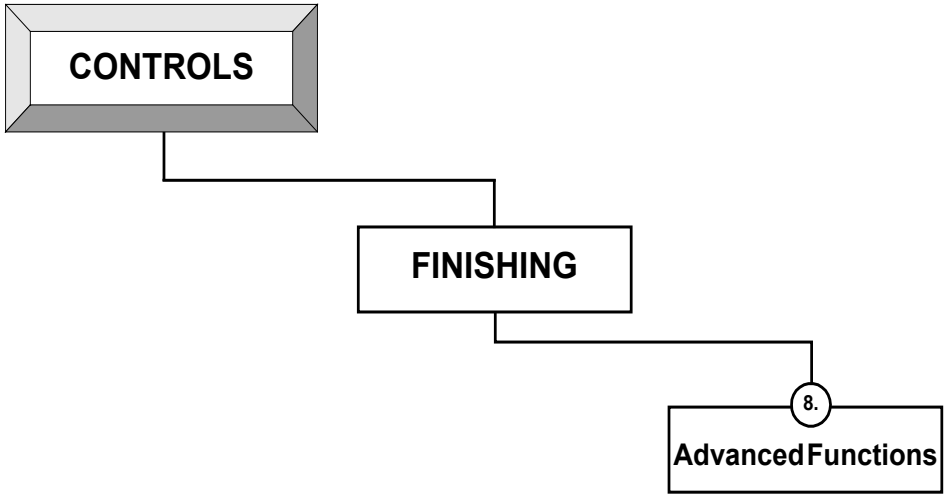
The **EQUALIZERS** function allows operation of a five band equalization system for each exit signal of the internal amplification **(Internal)** as well as for external amplification **(External)**.

Here below is shown the graph of the equalization system incorporated in the instrument.



The gain REGULATION RANGE (which is the only equalization control available) for each of the five frequency bands is: - 12 dB / + 12 dB.

ADVANCED FUNCTIONS



The following advanced functions are available with the "**Advanced Functions**" control (**follow SYSTEM PANEL N°2).**

1	**REVERB**	Advanced channelling functions of the reverb
2	**LANGUAGE**	Language selection for software setting
3	**MIDI FILTER**	Advanced functions for operating MIDI

1 REVERB (Advanced channelling functions of the reverb)

It selects whether to channel the reverberation effect only, to the exits of the internal amplification (**To Internal**) as well as external amplification (**External**) and which percentage to use.

2 LANGUAGE (Language selection for software setting)

This function allows for the selection of the following languages to use for the software setting:

- **English**
- **German**
- **Dutch**

REMINDER !
For language selection to become effective turn off the instrument.

3 MIDI FILTER (Advanced functions for operating MIDI)

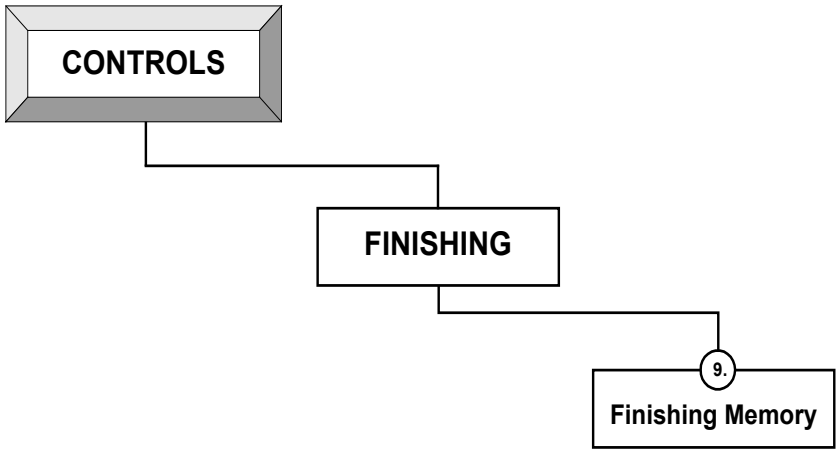
This function allows the expert player to manage independently the following "**Input**" and "**Output**" functions of the MIDI 1 and MIDI 2 sockets, when these are connected with another MIDI instrument or a Personal Computer:

It is possible, for each organ section (**Swell**-**Great**-**Pedal**), as well as independently, to enable the filters to receive (**Input**) and transmit (**Output**) MIDI message codes corresponding to the following parameters (see NOTE):

Note	Restricts messages of notes only;
Registers	Restricts message codes of stops only;
Control Change	Restricts message codes of Control Change only.

NOTE: For a complete description of the MIDI parameters which can be filtered by the Input and Output controls, please see MIDI Implementation Chart on the last pages of this User's Manual.

SETTING AND RECALL OF GENERAL SET UP OF THE INSTRUMENT



With this control the organist may arrange or recall his/her personal configurations relative to all the general settings of the instrument (such as: canalisation by section, stop families or single stops, manual inversion, short octave, Tremulant adjustment, etc.), with the exception of the programmable temperaments' settings. Entering the section **STORE**, the organist may fix his/her configurations in one of the four available memories (Finishing 1, Finishing 2, Finishing 3, Finishing 4).

```
  Finishing 1
  Finishing 2
> Finishing 3
  Finishing 4
```

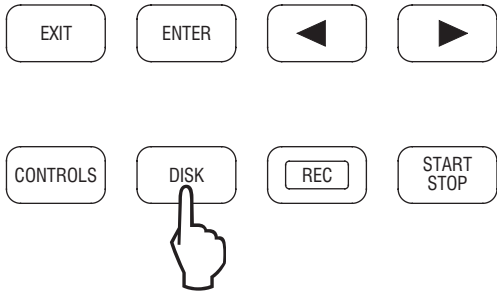
To recall the fixed configuration, enter the control **RECALL**, and select the relative memory number.

```
  Finishing 1
  Finishing 2
  Finishing 3
  Finishing 4
> Original
```

The position **ORIGINAL**, reactivates the configuration set by the factory.

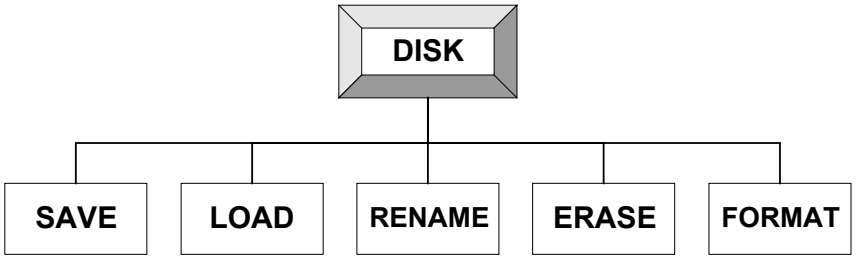
DISK BUTTON FUNCTIONS

1 Press the "**DISK**" button

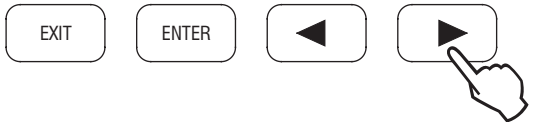


2 The display will flash the following:

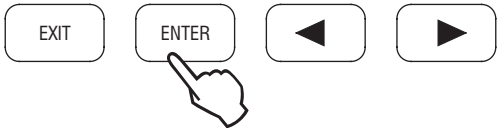
3 After a few seconds the display will show the five operations carried out by the Floppy Disk Drive (incorporated).



4 Press the ◄ DECR. or ► INCR. buttons to select one of the listed operations (see following page for the list of functions for every single operation).



5 After having made a selection using ◄ DECR. or ► INCR. buttons, press "**ENTER**" to confirm access to the function.



SYSTEM PANEL N. 3 ("DISK")

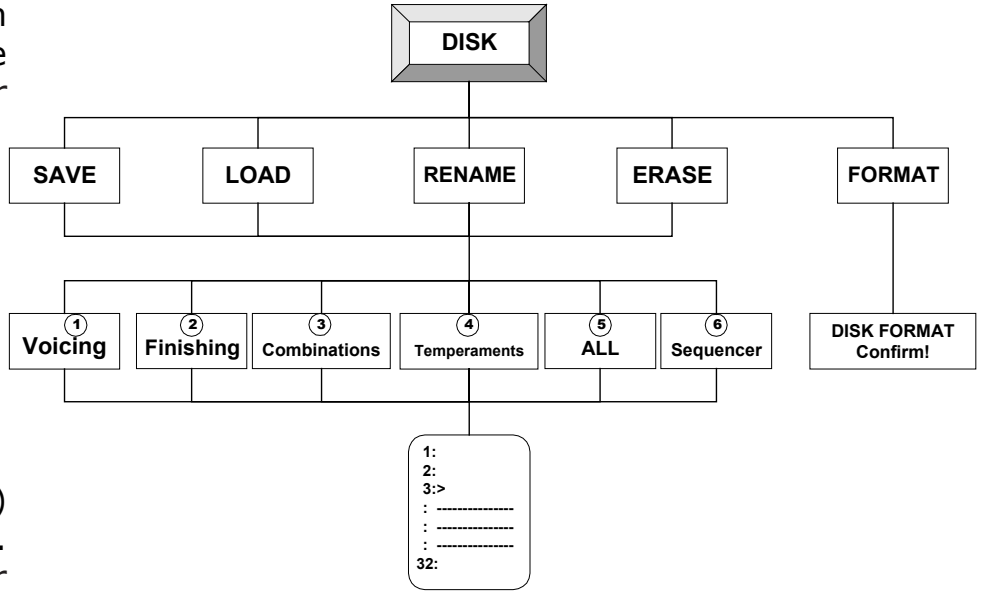
1 The five operations of the "**DISK**" control, shown on the display and run by the Floppy Disk Drive (incorporated), can be selected using the ◄ DECR. or ► INCR. buttons.

2 Confirm the selection by pressing **ENTER**.

3 Every operation (with the exception of "**FORMAT**") holds the six functions marked by a ringed numbers. Select the desired function by using the ◄ DECR. or ► INCR. buttons.

4 Confirm the selection by pressing **ENTER**.

5 The square with smooth corners shows the thirty-two positions which can be utilized to operate the Floppy Disk files (see **NOTE**). Using the ◄ DECR. or ► INCR. buttons, select the position relative to the Floppy Disk file.



***NOTE:** Procedures for functions (marked by a ringed number), as well as for files' positions, will be described at length in the pages that follow.*

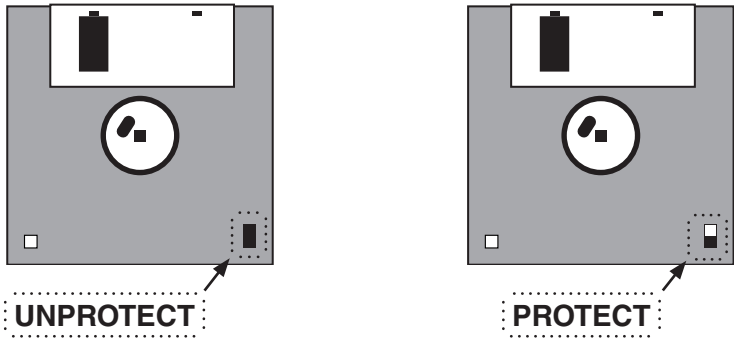
FLOPPY DISK

Use exclusively good quality **3,5" HD. 2 M. Byte MICRO FLOPPY DISKS**.

When handling floppy disks, follow these precautions:

1	Do not place disks next to loudspeakers, TV sets, or other electric appliances which generate high magnetic fields; as these may cause the cancellation of saved data.
2	Do not store disks in extremely hot or cold places, or where they can come into contact with dust or smoke.
3	Do not leave disks in direct sunlight.
4	Do not bend disks or subject them to pressure.
5	Do not try to open the metal protection shutter.

N.B. As with all cassettes, also the micro floppy disk has a memory protection system. When the small window above the switch is open, the MEMORY PROTECT function is activated and it is not possible to save data on the disk. Closing the window, by sliding the switch, the memory protection is deactivated and data can be saved.

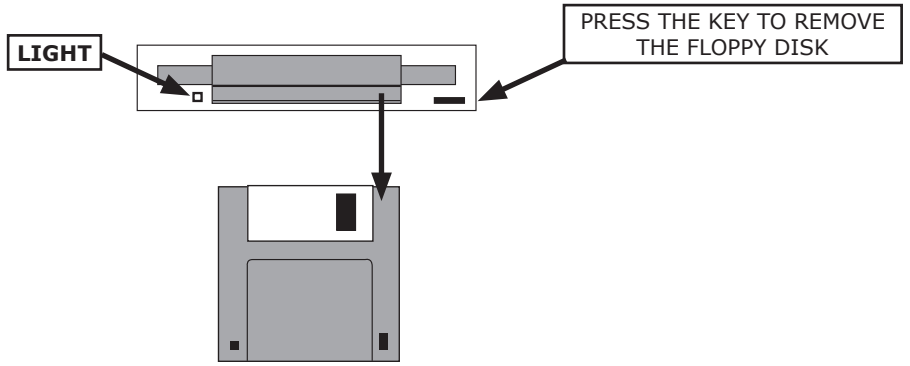


DISK INSERTION AND FORMATTING

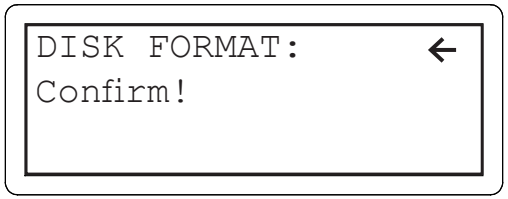
In order to utilize a new disk, it is necessary to carry out the **FORMAT** operation (formatting of the disk) in the following manner:

1 Make sure the disk is inserted only in the direction as shown here (when inserting the floppy disk in the drive, you should hear a "**click**" sound to ensure the disk is completely inside the slot).

2 Press the "**DISK**" button and (following SYSTEM PANEL N.3 at the previous page) search for the **FORMAT** function by means of the ◄ DECR. or ► INCR. buttons.

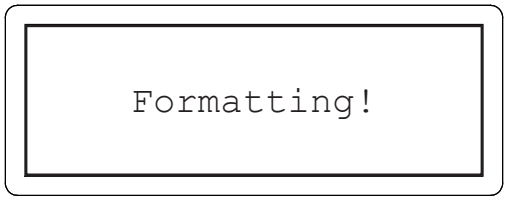


3 Press "**ENTER**". The display will show the following message:



4 Press "**ENTER**" twice to start formatting the floppy disk

During the operation (which will last approximately 1'and 20") the display will flash the following:



You are reminded that this operation must be carried out exclusively on new disks, or on old disks containing data you wish to erase.

REMINDER !
If the disk's protection has not been deactivated, the display will show "write protect" = writing protection activated.

OPERATIONS ON DISK

The floppy disk drive permits the following operations:The floppy disk drive permits the following operations:

1	**SAVE**	Saving of the files
2	**LOAD**	loading and recall of files
3	**RENAME**	Change name of the files
4	**ERASE**	Cancellation of the files
5	**FORMAT**	formatting of the floppy disk (as described in the preceding pages)

Every operation carried out on disk will be confirmed by the corresponding wording flashing on the display. For example, while carrying out the operation of saving (SAVE) the following wording will flash on the display:

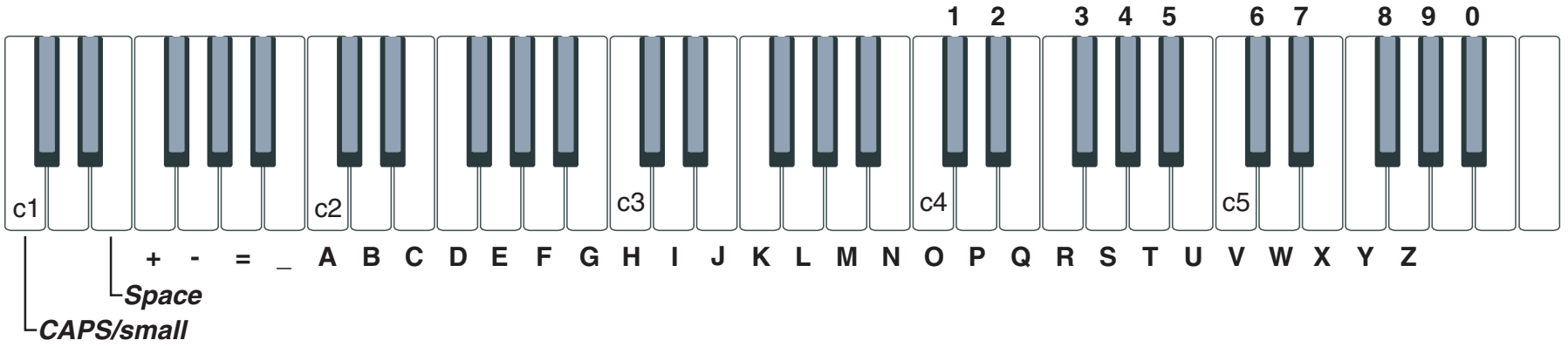
As already illustrated in SYSTEM PANEL N.3, the first four operations can be operated on the following controls:

1	**VOICING**	Configurations relative to the alternate and accessory stops and "*organ voicing*" (abbreviation **VOI**)
2	**FINISHING**	Settings relative to the general setting of the organ, such as: Tremulant-Utilities-Generals-Midi (abbreviation **FIN**)
3	**COMBINATIONS**	All which is inside the adjustable and collective Combinations of the organ (abbreviation **CMB**)
4	**TEMPERAMENTS**	Settings relative to the four programmable temperaments (abbreviation **TEM**)
5	**ALL**	All the above settings, has been saved in one file (abbreviation **ALL**)
6	**SEQUENCER**	Musical executions recorded through the Sequencer (abbreviation **SEQ**).

All above controls can use the thirty two memory positions available on disk.

NAMING OF THE FILES

It is possible to name files, during the SAVE and RENAME operations, by using the operating buttons with the five octaves of Manual I, which will function as an alphanumeric keyboard when pressed simultaneously with the "**F**" fixer. The keyboard shown here illustrates in detail the alphanumeric function.



ERROR MESSAGES

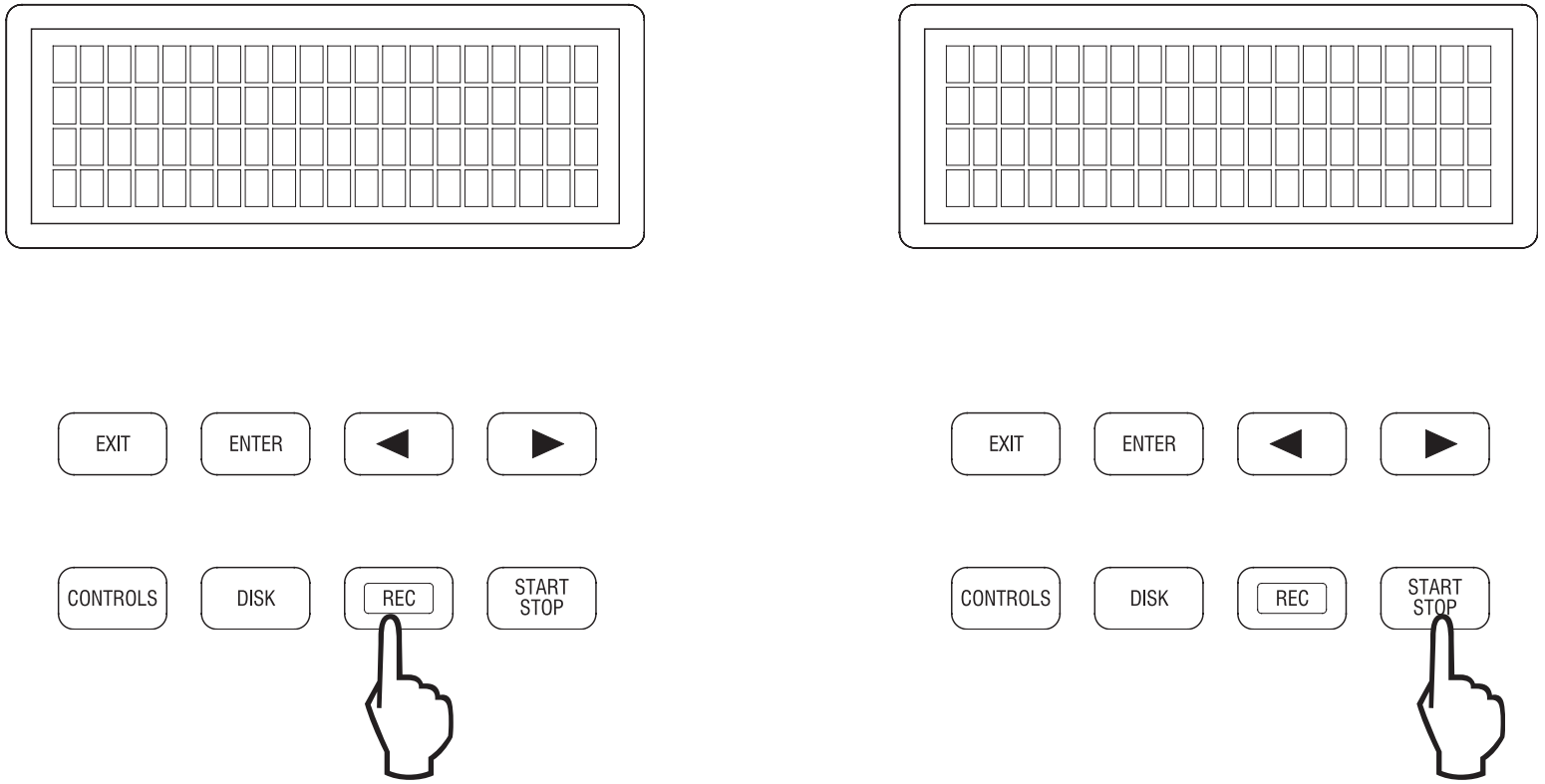
	MESSAGE	DESCRIPTION	Solution
1	**Invalid Disk Format**	Not compatible disk format: insert a 3.5" HD Disk and press the DISK button again, or proceed to the initialization by pressing ENTER.	—>Insert 3.5HD Disk —> ENTER to FORMAT.
2	**Fatal Error**	Fatal error; contact a technician. (Make sure the disk is of the right type).	
3	**File Not Found**	During a file search on disk , it was not found because non existent.	
4	**Write Protect**	Disk with memory protect activateted: desactivate protection.	—> Remove Disk Protection
5	**No Available Space On Disk**	The space available on disk is not sufficient. Delete one or more files.	—> Remove Files.
6	**No Available Space On Root Directory**	The space available on directory is not sufficient. Delete one or more files.	—> Remove Files.
7	**Formatting Error**	Formatting is not possible. Try again or change disk.	—> Retry.
8	**Disk Not Found**	Disk not found into the Drive,or defective disk, or not formatted disk, or different size disk: insert a 3.5" HD Disk and press the DISK button again, or proceed to the initialization by pressing ENTER.	—>Insert 3.5HD Disk —> ENTER to FORMAT.
9	**Incompatible File**	File not compatible with the instrument (file not loaded): it is not possible to operate.	—> File Not Loaded.

IMPORTANT INFORMATION: From these ERROR MESSAGES, it is possible to return at the starting position by pressing the EXIT button.

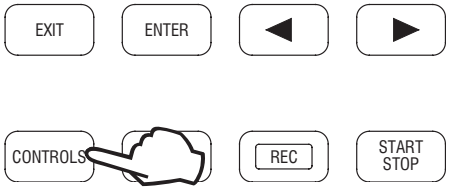
REMINDER : To return to the normal functioning of the organ, from any of these error messages, press the EXIT button.

FUNCTIONS OF "REC" AND START/STOP BUTTONS

These two buttons of the PROGRAMMING SECTION are closely connected to each other and are fundamental for the use of the **SEQUENCER** incorporated in the organ. The **SEQUENCER** (Digital multi-track recorder) permits the recording and playback of a musical piece directly from the instrument. This Sequencer has a memory capacity of about 40.000 events. For a clearer understanding of this section, the fundamental functions of RECORDING and PLAYBACK are explained. Of course, these are preceded by the description of SEQUENCER settings, so that the musician may decide all settings beforehand. Then, the accessorial functions, which contribute to perfect the musical recording or to render a more sophisticated use of the Sequencer, are examined.



METRONOME AND SEQUENCER SETTINGS



Pressing the "**CONTROLS**" button for about two seconds allows you to execute **all settings relative to the Metronome** and **some of the operating modes of the Sequencer**. (see **NOTE**).

The following indications will appear on the display:

```
METRONOME:
   Tempo          =     30
   Metronome      =     Off
   Level          =     0
```

```
  Lead      =     No
  Timing    =     30
  Rec.Mode  =     Overdub
> Signature=     1/8
```

They refer to the following parameters:

1	**Tempo**	Setting of the metronome tempo. The adjustment range is that of a normal mechanic metronome: from 30 to 240 beats per m/s.
2	**Metronome**	Activation/deactivation of the acoustic metronome while playing (On/Off).
3	**Level**	Acoustic level of the Metronome. The value range goes from 0 dB (maximum volume) to -24 dB (minimum volume).
4	**Lead**	Activation/deactivation of the pause beat before recording starts (Yes/No). When this function is on, it stops recording data in the Sequencer during the first metronome measure. It is recommended to deactivate this function when the organ is connected to a sequencer or external computer.
5	**Timing**	Selection of the metre-operating mode for the advancement of the musical sequence in use. Settings can be adjusted by number of measures (Measure), or by minute and seconds (mm:ss).

***NOTE:** always use the operating buttons to move inside the voices which appear on the display, or to modify the various parameters.*

6	**Rec. Mode**	selection of the recording mode. The setting can be adjusted either to substitute the previous recording (Replace)/ or to overdub the previous recording (Overdub).
7	**Signature**	setting of the measure.

1/8	2/8	3/8	4/8	5/8	6/8	7/8	8/8	9/8	10/8	11/8	12/8	13/8	14/8	15/8
1/4	2/4	3/4	4/4	5/4	6/4	7/4	8/4							
1/2	2/2	3/2	4/2											

REMINDER ! The musical measure selection must take place only when the Sequencer is empty.

When you are inside this function **you may use the acoustic Metronome for study**.
For this type of use it will be necessary to:

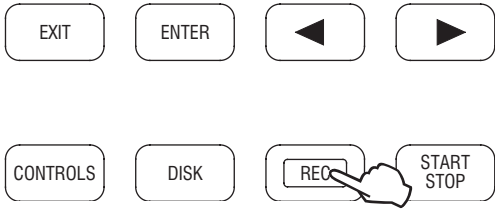
1 Go to the function "**Signature**"

2 Press the START / STOP button to activate the acoustic metronome during study sessions

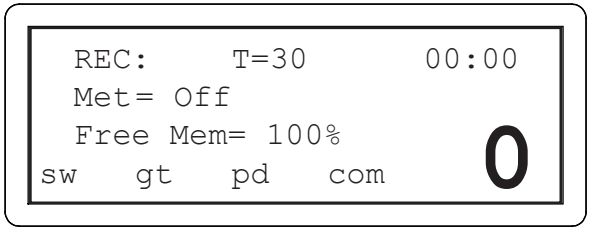
3 press the START / STOP button to deactivate the acoustic metronome during study sessions

RECORDING OF MUSICAL SEQUENCE

By pressing the "REC" button the organ is ready to record a musical sequence.



The following indications will appear on the display:



SEQUENCER TRACK STATUS	
Track name visualized in **UPPER CASE**	Track in **PLAY**
Track name visualized in **LOWER CASE**	*Track selected for* **RECORDING**
Track name visualized **: ––**	Track **DISABLED**

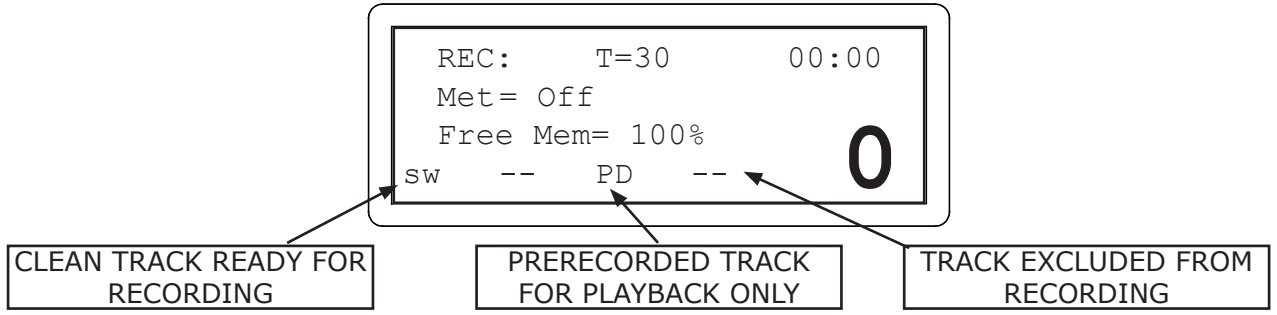
These parameter are referred to:

1	**T**	Setting of metronome tempo.
2	**00:00**	The musical sequence metering will appear (see **NOTE 1**).
3	**Met**	activation/deactivation of the acoustic metronome while playing -On/Off (see **NOTE 1**).
4	**Free Mem**	free memory percentage available in the SEQUENCER will appear.
5	**sw/gt/pd/com**	recording tracks (see **NOTE 1**).
6	**0**	Crescendo position. (see **NOTE 2)**

To start recording the musical piece in the Sequencer

1 Insert the necessary organ stops (using the lit tablets, the adjustable combinations, the collective combinations and the Crescendo). These stops (including the choices of Alternative Stops) and **all the modifications** carried out while playing, as well as all other controls activated (section volumes, expressions, Crescendo and metronome tempo), **will be memorized** by the Sequencer. **See note 2.**

2 Select the organ sections on which you wish to make the recording. Press ENTER/EXIT to reach the chosen section track. The section initials will appear in three different ways, according to the pressure exercised on the ◂ DECR. or ▸ INCR. buttons, as shown on the display here below:



3 Press START / STOP to start recording

- If you have selected the pause beat (LEAD = Yes), wait one beat before playing, otherwise that beat will NOT be memorized by the Sequencer.
- If you haven't selected the pause beat (LEAD = No), you may start to play immediately.

NOTE 1: • ***to select these functions use the operating buttons EXIT / ENTER. To modify their settings use the ◂ DECR. or ▸ INCR. operating buttons the parameter to be modified will flash on the display.***

NOTE: for organs supplied with "CRESCENDO" pedal only

- **While recording (see example on the display):**

A metering of the musical sequence will constantly appear in real time.

B The available free memory percentage is updated in real time. Press STOP to carry out an optimisation of used memory which will in turn increase available free memory. Separate tracks recording will permit the best use of available memory for the Sequencer.

C Independently from the acoustic signal, scansion of the metronome tempo, will always show on the display as follows:

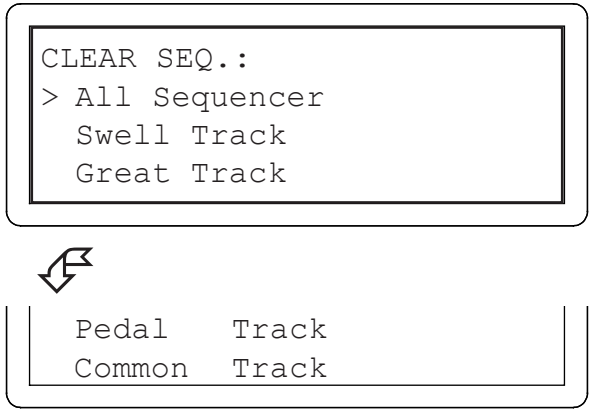
4 When you have finished playing, press the START / STOP button to stop the SEQUENCER.

5 If you press again the START / STOP button, recording will continue from the point it was stopped. If you keep pressed EXIT, you will definitely exit from the recording and from the SEQUENCER.

REMINDER ! While recording, if the function Rec.Mode was selected on "Overdub", the musical execution will overdub on the old musical piece (unless it was cancelled in the Sequencer).

TRACKS CANCELLATION

Pressing the "**REC**" button for about two seconds, prepares the organ **for the cancellation of single tracks of the SEQUENCER**. The following indications will appear on the display:

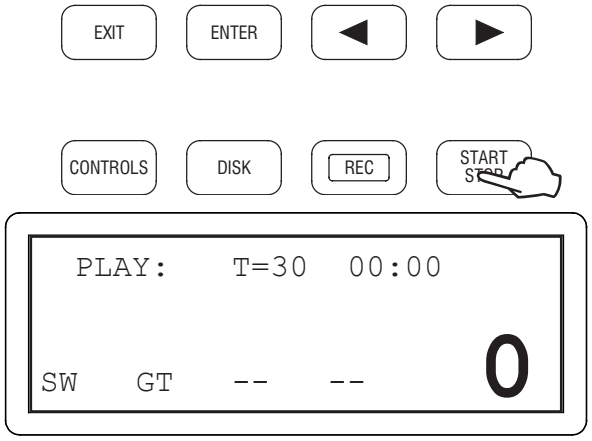


These parameter are referred to:

1	**All Sequencer**	Cancellation of the entire Sequencer.
2	**Swell Track**	Cancellation of the track relative to the Swell section.
3	**Great Track**	Cancellation of the track relative to the Great section.
4	**Pedal Track**	Cancellation of the track relative to the Pedal section.
5	**Common Track**	Cancellation of the track relative to the Common section.

PLAYBACK OF A MUSICAL SEQUENCE

Press the "**START/STOP**" button to play the musical pieces contained by the SEQUENCER.



The following indications will appear on the display:

They refer to:

1	**T**	Setting of metronome tempo.
2	**00:00**	Meter setting (see **NOTE**).
4	**SW/GT**	Tracks originally used for the musical piece.
5	**--**	Tracks originally not used in the musical piece.
6	**0**	Crescendo position.

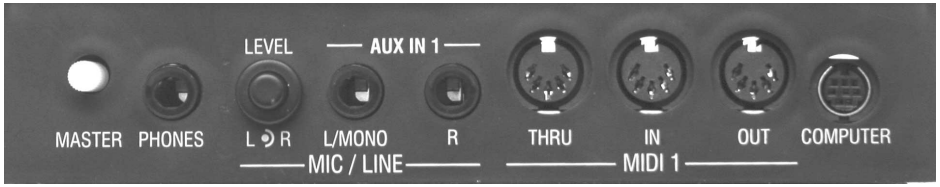
It may be useful for the organ student, during his/her study, to playback each individual track or to exclude one or more tracks, using the remaining tracks as study base. Press the ENTER/EXIT buttons to reach the chosen section track. Then press the ◂ DECR. or ▸ INCR. buttons to activate or exclude the same track from playback. Press the START / STOP button and the Sequencer will pause. Press the button again and listening will restart from that point. To listen to the musical piece from the beginning, press the START/STOP button, keep pressed the EXIT button, and the START / STOP button in consecutive order.

To cancel the entire contents of the SEQUENCER, follow the procedure explained in the previous page.

NOTE: to modify the settings of metronome tempo during playback, press the operating buttons ◂ DECR. or ▸ INCR.

CONTROLS AND CONNECTIONS

The connection panel is located in the upper part of the hollow between the manuals and the pedalboard, to the extreme right of the console.



MASTER (General and headphones volume)
The general volume of the instrument acts both on the internal amplification and on the headphones (PHONES). The display will show the level (from 0 to 127) for a few seconds. The volume of external amplification may be controlled by the MASTER button on the remote control.
PHONES (Headphones)
Headphones Connection socket (Impedance: min. 30 ohms / max. 600 ohms). By inserting the jack, the internal speakers will be automatically disengaged. The volume of the headphones is regulated by the Master control (see above).
MIC / LINE (Level L/R)
Microphone general volume controls. Independent controls for the sensitivity of the AUX IN 1 inputs, when non used as microphone inputs.

REMINDER ! ***When AUX IN 1 inputs are not used for the microphone but as Line input, it is suggested to adjust both sensitivity controls (Level L/R) to the minimum (total anti-clock rotation).***

MIC / LINE - AUX IN 1 (L / MONO)
Stereo input (left channel) or monophonic input for microphone or other external sound sources (tape-recorder, other musical instruments, etc.).
MIC / LINE - AUX IN 1 (R)
Stereo input (right channel) for microphone and other external sound sources (tape-recorder, other musical instruments, etc.).
MIDI 1 (IN - OUT - THRU)
MIDI connecting sockets (Musical Instrument Digital Interface).
COMPUTER
Connecting socket for Personal Computer or MAC.

REAR PANEL FOR EXTERNAL CONNECTIONS

The panel is in the lower right side. The panel is divided in five different sections:

1	**REMOTE BOX POWER SWITCH.**
	Remote control turn-on command for amplified speakers or speaker amplifiers.
2	**OUTPUT** (L-R)
	External Output Channelling
3	**AUX IN 2**
	INPUT stereo sockets for external source plug.
4	**MIDI 2** (IN - OUT - THRU)
	MIDI sockets
5	**AUTOMATIC TUNING**.
	Automatic tuning socket, connected to a pipe organ (see page 73).

REMOTE BOX POWER SWITCH

Remote control turn-on command for amplified speakers or speaker amplifiers

This command generates a 12 V D.C. - 1A. output signal which automatically turns on all the speakers connected together, when the instrument is turned on. In case of a short circuit, the connection will be automatically cut off. After eliminating the cause, turn on the instrument and the connection will be restored.

OUTPUT

It is possible to connect two speakers (or speaker amplifiers) to these sockets.

For operating instructions refer to the **CHANNELLING chapter of this User's Manual**.

IMPORTANT INFORMATION:

When positioning the speaker cabinets, the left and right sections should not be spaced too far away from each other (recommended distance: 2 ÷ 4 meters). The effect should be similar to that of the wind-chest of a pipe organ.

Do not place the speakers too far away from the organ console. An excessive distance would cause an irritating time lag due to the propagation of sound in the room.

AUX IN 2

L/Mono-R (0 dB - 47 Kohms).

Extra auxiliary input left/right for external sound sources (tape-recorder, other musical instruments, etc.).

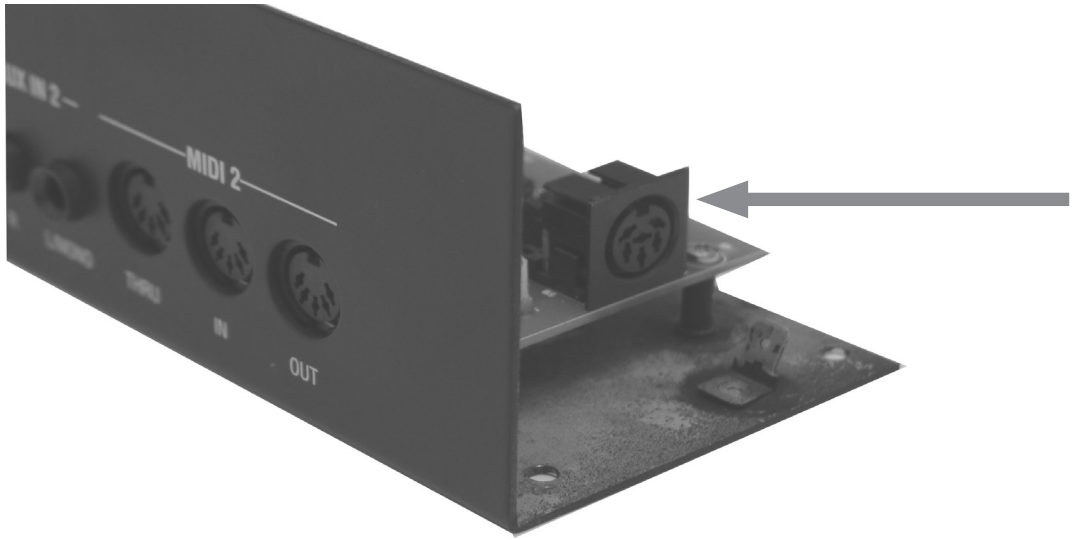
MIDI SOCKETS

Complete MIDI connection (IN-OUT-THRU) available for connecting another digital instrument or for connecting the PRAELUDIUM III in combination with a pipe organ.

AUTOMATIC TUNING

Connection for the automatic tuning ("Organ Tuning") with the pipe organ. This is to be found on all Classical Organs of the ORGANUM/PRAELUDIUM line. "Organ Tuning" is controlled by a ***Room*** (***Ambient***) ***Temperature Sensor***. This sensor is available as optional accessory and can be ordered with the code 970238.

Beware! The "Automatic Organ Tuning" socket, is located inside the "REAR PANEL" (See following picture)



MIDI IMPLEMENTATION CHART

Models: Praeludium III - Praeludium IV/E

Function		Transmitted	Recognized	Remarks
Basic Channel	Default Changed	1-16 1-16	1-16 1-16	There are 3 Basic Channels (n) and an extra Common Channel (c)
Mode	Default Messages Altered	Mode 3 x **********	Mode 3 x x	
Note Number	 True Voice	30-103 30-74 **********	30-103 30-74 x	For Manuals For Pedals
Velocity	Note On Note Off	o o	o o	
After Touch	Key's Ch's	x x	x x	
Pitch Bender		x	x	
Control Change	**4**(c) Crescendo **7**(n) Section Volumes **7**(c) Int. Main Vol. **92**(n) Tremolo **83**(c) General Controls (c) Organ Tuning (n) Stops On/Off **70**(n) Stops On/Off	o o o o o o o o o o	o o o o o o o o o o	(1) (2) **RPN:** Bc 65 00, Bc 64 01, Bc 06 tt (1) (3) **NRPN:** Bn 63 ee, Bn 62 bb, Bn 06 xx (1) only for MIDI PIPE
Program Change	(c) Gen. Combinations True #	o (0-500) **********	o (0-500) x	(4) **Bc 00 hh, Bc 20 ll, Cc pp**
System Real Time	Clock Commands	o o	o o	
Aux Message	Local ON/OFF All Notes OFF Active Sense Reset	x o o x	x o o o	

(n) one of basic Channels
(c) Common Channel

Mode 1: Omni On, Poly
Mode 2: Omni On, Mono
Mode 3: Omni Off, Poly
Mode 4: Omni Off, Poly

o:Yes
x:NO

(1) Ahlborn Reserved Code
(2) tt: 0= -100 cents, 64= 0 cent, 127=+100 cents

(3) ee: 0= Stop Off, 64= stop On
bb: 0-127= Stops Bank
xx: 0-127= Stop index of current Bank

(4) hh: 64 = MSB Bank Select
ll: 0-3= LSB Bank Select
pp: 0-127=Gen. Combination index of current Bank
if (ll=0 and pp=0)→Return to Handset

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HIGH DEFINITION PIPE ORGAN SOUND

Schulze Pollmann S.r.l. Via Metauro, 17 - 61033 Fermignano (PU) - Italy

Tel.: +39-(0541)-959511 Fax: +39-(0541)-957404/959674 - Web: http://www.ahlbornorgans.com - E-mail: ahlborn@ahlbornorgans.com